

**Student-Student collaboration in wiki mediated
collaborative writing activities: Exploring EFL teachers'
roles in the collaborative process**

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Abstract

The use of wikis to support collaborative writing activities has captured the attention of second/foreign language researchers (SL/FL). The majority of studies to date have found evidence of positive collaborative behaviours, however some studies have reported inactive and unequal participation, individual ownership of the text, and minimal evidence of collaborative dialogue. Although the important role of the teacher has been reported in contexts such as face- to-face (FTF) and other online contexts, few studies have explored the effect of teachers' online interventions on student-student (S-S) interaction in the wiki context. Therefore, this thesis fills this gap by exploring teachers' interventional behaviours, and in particular, how they affect S-S wiki collaboration. A qualitative multiple case study design was conducted with 3 EFL teachers and their students (aged 17-18 years) at two Kuwaiti government high schools. Data were collected over a period of 13 weeks. The online discussion that occurred between students via the wiki threaded mode and their writing behaviours, as shown in the edits history were analysed and triangulated with the interview data. Unlike previous research, this study brings together the analysis of the wiki threaded discussion and editing behaviours to understand the process of collaboration.

Qualitative Computer Mediated Discourse Analysis (CMDA) suggests that the teachers played an effective role in shaping the way the students interacted. An examination of the teachers' interventional behaviours suggests that some interventional behaviours promoted S-S collaboration and some hindered it. Behaviours such as establishing a wiki culture of collaboration, reinforcing a sense of wiki community, asking students to engage mutually, being a co-learner and modelling editing behaviour, all seem to promote collaboration. Conversely, direct teacher edits, immediate responses, using an authoritative tone, and asking inactive students to participate may promote participation but not necessarily collaboration. The interview data also suggested that sociocultural issues, such as teachers' superiority, questionable peer feedback, and individual text-ownership hindered collaboration.

Therefore, this thesis argues that even in an online student-centred context such as a wiki, the role of the teacher is critical. Teachers who adopt a non-authoritative and collaborative-orientated intervention are much more effective in promoting S-S collaboration than those who are authoritative and intervene in a non-collaborative way. There is therefore a need for teacher training that raises teachers' awareness of effective pedagogy regarding the use of wikis.

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Author's declaration

I, [Maha Alghasab], declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References. The work in this thesis has not previously been published with the exception of the followings:

Alghasab, M. (2014). Wiki-based collaborative writing activities in EFL classrooms: Exploring teachers' intervention in the collaborative process. In S. Jager, L. Bradley, E. J. Meima, & S. Thouëсны (Eds), *CALL Design: Principles and Practice; Proceedings of the 2014 EUROCALL Conference, Groningen, The Netherlands* (pp.1-5). Retrieved from http://research.publishing.net/display_article.php?doi=10.14705/rpnet.2014.000185

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Chapter 1 Introduction

1.1 Rationale

In second and foreign language classrooms (SL/FL), collaborative writing activities are recognised as meaning focused activities with potential benefits for language learners (De la Colina & Garcia Mayo, 2007; Dobao, 2012; Fung, 2010; Kessler, 2009; Li & Zhu, 2011; Shehadeh, 2011; Storch, 2005, 2011, 2013a, 2013b). Collaborative writing activities involve the production of a text by two or more writers (Storch, 2011). The majority of research findings in face-to-face (FTF) contexts have been promising, reporting positive results from this activity on developing individual writing performance, vocabulary acquisition and enhancing the quality of the final text (Dobao, 2012; Kim, 2008; Shehadeh, 2011; Storch, 1999, 2005; Storch & Wigglesworth, 2007; Wigglesworth & Storch, 2009). It has also been reported that this activity promotes collaboration, which refers to students' mutual interaction where instances of reciprocal feedback and the sharing of ideas are predominant throughout the activity (Storch, 2013a). Collaboration also involves students' engagement in a *collaborative dialogue* whereby students verbalise their ideas, notice their linguistic gaps and jointly co-construct knowledge that goes beyond their individual abilities (Brooks & Swain, 2009; Swain, 2000, 2006; Swain & Lapkin, 1998; Swain & Watanabe 2013).

With the emergence of new technologies, wikis have captured computer-assisted language learning (CALL) researchers' attention due to their affordances for collaborative writing activities. A wiki is an online collaborative tool with an open editing system that allows users not only to edit content but to also jointly write a text (Godwin-Jones, 2003; Kessler, 2009). In essence, it consists of hyperlinked web pages, a record of editing behaviours, discussion and writing pages (Pifarre & Staarman, 2011; Yates, 2008). Similar to FTF research findings, studies have reported that wiki-mediated collaborative writing activities enhance students' writing performance (Alshumaimeri, 2011; Mohammed, 2010), grammatical and content knowledge (Castañeda & Cho, 2012; Pellet, 2012), and revision processes (Arnold, Ducate, & Kost, 2009, 2012; Mak & Coniam, 2008; Woo, Chu, & Li, 2013). One main finding is that wikis promote collaborative behaviours amongst students whilst completing the collaborative writing activity (Arnold, Ducate, Lomicka, & Lord, 2009; Arnold et al., 2012; Cullen, Kullman,

& Wild, 2013; Kessler & Bikowski, 2010; Lee, 2010; Li, 2013, 2014; Li & Zhu, 2011; Lund, 2008; Nami & Marandi, 2013; Nguyen, 2011; Storch, 2011, 2013b).

Reviewing the literature in relation to the effect of wikis in promoting collaboration reveals inconclusive findings. The majority of wiki research reports positive collaborative behaviours in the form of *collaborative dialogue* and the co-construction of the text (Arnold, Ducate, & Kost, 2009; Aydin & Yildiz, 2014; Bradley, Lindstrom, & Rystedt, 2010; Bradley, Lindstrom, Rystedt, & Vigmo, 2011; Ducate, Lomicka, & Moreno, 2011; Kessler & Bikowski, 2010; Lee, 2010; Li, 2013, 2014; Li & Zhu, 2011; Lund, 2008; Mak & Coniam, 2008; Woo, 2013; Woo, Chu, Ho, & Li 2011). Some studies, especially those conducted in schools (Grant, 2009; Lund & Smordal, 2006) and other tertiary contexts, (e.g., Cole, 2009; Judd, Kennedy, & Cropper, 2010; Lim, So, & Tan, 2010) offer contradictory findings, reporting that students import traditional classroom practices such as individual writing and ownership of the text. Some students apparently remain inactive and passive, disengaged from others and ignoring other's suggestions. There is also an absence of *collaborative dialogue* between students and few evidence of editing other's texts. Other studies conclude that students might not always engage in collaborative patterns of interaction (e.g., Alyousef & Picard, 2011; Bradley et al., 2010; Kost, 2011; Li & Zhu, 2011). Other patterns, such as *authoritative/responsive* (i.e., when one member establishes authority and leading role whilst others passively accept all the leader's contributions), *dominant/withdrawn* (i.e., one student dominates the interaction whilst others remain passive contributing very little to the activity), and cooperative (i.e., members contribute equally without engaging mutually) may also occur whilst interacting in the wiki (Li & Zhu, 2011). Some students adopt social loafer (i.e., contributing less than their fair share) or free rider (i.e., doing nothing to complete their activity and mainly relying on others) roles (Arnold, Ducate, Lomicka et al., 2009; Kessler, 2009; Kost, 2011; Lee & Wang, 2013). Some studies report that many learners are only passively engaged or make few individual contributions (Judd et al., 2010; Kessler & Bikowski, 2010; Lim et al., 2010).

To date, researchers have provided tentative conclusions in relation to factors that may affect students' collaboration. These factors are the group dynamic (Arnold, Ducate, Lomicka et al., 2009; Lee & Wang, 2013; Li & Zhu, 2011), the type and design of the task (Alyousef & Picard, 2011; Aydin & Yildiz, 2014; Lee, 2010; Mak & Coniam, 2008), contextual and institutional factors (Arnold et al., 2012; Grant, 2009; Lee, 2010;

Lim et al., 2010; Lin & Yang, 2011; Lund & Smordal, 2006), the technical affordances of the wiki (Cole, 2009; Lee & Wang, 2013; Zorko, 2009), and the presence of the teacher (Arnold et al., 2012; Kessler, 2009; Lin & Yang, 2011; Nami & Marandi, 2013; Woo et al., 2013). The last factor is relevant to this study; researchers have argued that even though the principle design of the wiki assumes student-centrality, the teacher's presence is crucial. This argument, however, has not been supported by solid empirical studies examining how teacher interventions affect student-student (S-S) collaboration. Previous studies have primarily examined S-S interaction, whilst marginalising the teacher's role. Outside the wiki context, empirical evidence gathered in FTF and other online contexts has emphasised the critical role of teachers in promoting students' collaboration (e.g. Anderson, Rourke, & Garrison, 2001; Ernest et al., 2012; Mercer, 1995, 1996; Pawan, Paulus, Yalcin, & Chang, 2003; Rojas-Drummond & Mercer, 2003; Yoon & Kim, 2012). Arguably, therefore, teachers could play an essential role in promoting S-S collaboration in the wiki context.

1.2 Aims and research questions

This thesis aimed to address the literature gap in relation to the role of the teacher in the wiki context by exploring English as a foreign language (EFL) teachers' online interventional behaviours, to understand how they affect S-S online wiki collaboration. More precisely, it aimed to help language teachers to attain a better understanding of their roles in wiki-mediated collaborative writing activities, to guide them towards behaviour that promotes S-S collaboration. This overarching aim was achieved by targeting the following objectives: (1) exploring the nature of S-S online wiki interaction. Unlike the majority of studies, S-S interaction was examined taking into consideration both levels of interaction, namely the wiki threaded discussion and the text modes (i.e., editing behaviours); (2) whilst students were interacting, the focus was on how teachers intervened and whether their interventions promoted/hindered S-S collaboration. To examine this complex online interaction that not only involved S-S interaction but also teachers' behaviours at two levels of wiki interaction, a qualitative case study design was employed to get an in-depth perspective. More precisely, a multiple case study design was used to highlight variations in the ways in which different teachers supported their students. To achieve the main overarching aim, the following contributing questions were proposed to explore the process of interaction:

RQ1. What collaborative/non-collaborative behaviours do Kuwaiti EFL female students from two government secondary schools engage in whilst writing their texts using the wiki threaded discussion and editing modes?

RQ2. How do Kuwaiti secondary school EFL teachers intervene in students' online wiki activity?

RQ3. Do teachers' online wiki interventions promote or hinder students' collaboration? If so, how?

1.3 Significance of the study

Successful language teachers comprehend the theoretical importance of S-S interaction when learning a target language. However, many teachers still wonder what they can do to enhance S-S interaction, especially in a context such as a wiki. This thesis aimed to help teachers to understand how to play an effective role in promoting S-S interaction in wiki-based collaborative writing activities. Based on the study findings, teachers were given a list of behaviours that appear to promote/hinder S-S wiki collaboration. This was in the hope of improving teachers' online practices when they mediate S-S wiki interaction. Admittedly, some of these behaviours were found in FTF contexts; however, exploring such an issue in the wiki context is an original theoretical contribution to the CALL literature generally, and to wiki research specifically.

This study also makes methodological contributions. As is discussed in Chapters 3 and 4, wikis involve two levels of interaction, namely the wiki threaded discussion and text modes (i.e., editing behaviours). To date, a few studies (Li, 2014; Woo, 2013) have examined S-S interaction at both levels of interaction; however, these studies did not address how teachers intervene the process. Therefore, this study provides a unified analytical framework that examines S-S interaction in the threaded and text modes, and conceptualises teachers' roles in the wiki context. This is a contribution to the wider wiki literature, as the framework could help future researchers to analyse the collaborative process as it unfolds at both levels of interaction, including S-S and teacher-student (T-S) interaction. To the researcher's knowledge, this analytical framework is the first attempt to integrate an analysis of teacher interventions with S-S interaction in the wiki context. Another methodological novelty of the current thesis is the use of a variety of data resources in investigating the online interaction. Although previous research has combined online interaction data with student and teacher

interviews, the use of stimulated recall interviews with the teachers is original and will hopefully enhance the understanding of the nature of teacher and student interaction in the wiki context.

The study's originality also lies in the fact that it explores the proposed research questions in a new sociocultural context, namely the Kuwaiti context. That is, whilst the majority of wiki research has been conducted with students from different cultural backgrounds, this topic has rarely been explored with Arab EFL students. There are a limited number of studies (Alshumaimeri, 2011; Mohammed, 2010) conducted with Arab EFL learners. These studies, however, were conducted in the university context and focused solely on the product; by examining the effect of wikis on students' writing performance, analysis of the process remaining unknown.

1.4 Structure of the thesis

The remainder of this thesis is organised as follows. In Chapter 2, the current study is situated in a specific sociocultural context, namely the Kuwaiti context. The teaching and learning culture of this context is presented (section 2.2), and the current educational practices and approaches to teaching EFL are discussed (sections 2.3). The place of technology in Kuwaiti schools and more specifically in EFL classrooms is also highlighted in section 2.3.3. Finally, the chapter concludes by discussing EFL teachers and the professional development programs designed for teachers to help them to teach English writing and to use technology (section 2.4). The existence of collaborative writing activities and the Kuwaiti Ministry of Education's initiatives to embrace technologies provide an appropriate sociocultural context to explore the literature gap that Chapter 3 explains.

Chapter 3 concentrates on situating the study in its broader theoretical and empirical contexts. It presents Sociocultural Theory (SCT) as a theoretical lens through which interactions in language classrooms can be examined (section 3.2). One of the implications of this theory is that collaborative activities facilitate social interaction between students. Based on this, section 3.3 aims to define the notion of collaboration and to distinguish it from other types of interaction. The chapter also presents how a writing activity provides a context for collaboration; process writing with its focus on peer review and collaborative writing activities are discussed (section 3.4). Sections

3.4.2.1, 3.4.2.2 and 3.4.2.3 enhance the understanding of the meaning of collaboration in a collaborative writing activity and highlight the conditions that promote or hinder collaborative behaviours. Section 3.5 narrows the focus of the current study by discussing previous research findings in relation to students' wiki interaction in the wiki threaded discussion and text (i.e. editing behaviours) modes (sections 3.5.1 and 3.5.2). This is followed by a presentation of the main factors that affect S-S collaboration in wiki-based collaborative writing activities (section 3.5.3). Section 3.5.4 further identifies the literature gap, and constructs an argument that claims that teacher online interventions can promote S-S collaboration in wiki-mediated collaborative writing activities. This argument is strengthened by discussing the role of the teacher from a SCT perspective (section 3.6), providing evidence of how teachers enhance S-S collaboration in FTF and in other online contexts (sections 3.6.1. and 3.6.2). Another gap that emerges from the current wiki literature is the limiting of the analysis to one mode rather than another. That is, some wiki studies analyse the process of discussion that occurs between students in the threaded discussion mode, whilst ignoring the writing behaviours they engage in (i.e., editing behaviours in the text mode), or vice versa. This chapter ends by proposing the research questions.

Chapter 4 presents the research methodology employed to answer the proposed research questions. It starts by discussing the appropriate paradigmatic stance and research approach that was adopted (sections 4.2 and 4.3). It also discusses the combination of the various methods used, the study's participants and the boundaries of the case study (sections 4.3.1, 4.3.2, and 4.3.3). Sections 4.4 and 4.5 discuss lessons learnt from the pilot study, the design of the instruments and the procedures of the main study. In section 4.6, the approach to data analysis that considers both levels of interaction (i.e., the wiki threaded discussion and text modes) is explained. The remaining sections of the chapter discuss trustworthiness (section 4.7), the researcher's stance and bias (section 4.8), ethical considerations (section 4.9), and acknowledge the problems encountered (4.10).

The principal aim of Chapter 5 is analytical. It presents a cross case analysis of the three cases. It starts by first providing background information about the participants (sections 5.2 and 5.3). This is followed by a summary of the main behaviours observed in each case (section 5.4). In section 5.5, a cross case analysis is presented to bring all three

cases together. It discusses similarities and differences in how teachers and students interact at the organisational, socio-cognitive and socio-affective levels.

Chapter 6 extends the analysis by discussing the main findings in relation to how teacher interventional behaviours affect S-S collaboration, and the types of teacher interventional behaviours that promote or hinder S-S collaboration (section 6.2). It also highlights the effectiveness of the analytical approach, arguing that many instances of collaboration are missed if we only look at one mode of interaction (section 6.3).

Chapter 7 concludes the thesis by reiterating the focus, summarising the main findings and highlighting the methodological and theoretical contributions of the study (section 7.2). This is followed by an acknowledgment of the limitations of the study (section 7.3), the study's implications (section 7.4 and 7.5.) and directions for future research (section 7.6). The thesis ends by sharing a final word with its readers (section 7.7).

Chapter 2 The Kuwaiti sociocultural context

2.1 Overview

In CALL literature, it has been frequently argued that the successful implementation of technology in language classrooms depends on sociocultural and institutional variables (Chambers & Bax, 2006; Egbert, 2005; Huh & Hu, 2005; Warschauer, 1998, 2003, 2005). These involve micro-level variables such as the teachers' and learners' characteristics, language learning experience, and their background in computer use, as well as macro-level variables such as the teaching and learning practices adopted in a particular sociocultural and institutional context. Taking into consideration this line of argument, it was necessary to devote this chapter to discussing the macro-level variables, whilst reserving the micro-level description for the data analysis chapter (Chapter 5).

This chapter discusses three main points relevant to the present thesis. Firstly, it describes the teaching and learning culture of the Kuwaiti context, covering key features of the Kuwaiti educational system and teaching EFL (sections 2.2. and 2.3). This involves describing the broad approach to teaching EFL generally (section 2.3.1), and specifically highlighting how writing is taught along with the place of collaborative writing activities in the Kuwaiti curriculum (section 2.3.2). Secondly, it explains the place of technology in the Kuwaiti EFL classroom (section 2.3.3), highlighting the Kuwaiti Ministry of Education's initiatives to embrace technology. It also describes the current practices of using technology inside Kuwaiti EFL classrooms. The last point describes EFL teachers, their qualifications and the professional development training courses they are expected to attend whilst working in Kuwaiti government schools (section 2.4).

2.2 The teaching and learning culture

Kuwait is an Islamic Middle Eastern country where attendance at school is obligatory for all boys and girls from the age of six. However, affected by traditions and Islamic norms, Kuwaiti government schools are gender segregated. The educational ladder consists of four main stages: Kindergarten (2 years), primary (1st to 5th grade), intermediate (6th to 9th grade) and secondary school (10th to 12th grade). Obligatory

subjects are maths, science, religious and social studies, the Arabic and English languages, physical education, fine arts, music and information computer technology (ICT). English is obligatory from primary school, and ICT is obligatory from the intermediate stage. Students must take written examinations to test their English language abilities. For ICT studies, students have to pass written and practical exams. They have to be able to demonstrate satisfactory performance when applying newly taught information technology (IT) skills independently. If a student fails a specific exam in any compulsory subject, including English language or ICT, he/she has to repeat the year including all other subjects.

Therefore, like other Middle Eastern countries, the Kuwait's educational system is an examination-oriented system, which is based on the students' passive intake of knowledge (Derderian-Aghajanian & Cong, 2012; Mahrous & Ahmed, 2010). Similar to Mahrous and Ahmed's (2010) description of other Middle Eastern students, and based on the researcher's teaching experience in Kuwait, it can be seen that Kuwaiti school-age students learn in traditional classrooms where teachers plan the content of the lesson in advance and transmit knowledge to the students. To pass examinations, students memorise previously taught information rather than applying new ideas, or analysing and seeking out new knowledge. In such traditional classrooms, students are expected to view teachers as the most valid source of knowledge; and their opinions, answers and knowledge are never questioned (Mahrous & Ahmed, 2010).

The next section narrows the focus by discussing how English is generally taught as a FL in the Kuwaiti context.

2.3 English as a foreign language (EFL)

In Kuwait, Arabic is the main medium of instruction in government schools and English is taught as a FL by Arab and other non-native speakers of English (details in section 2.4). In 1993, the total years of studying English language were increased from 8 to 12 years across the pre-tertiary educational ladder. By the academic year 2002/2003, each stage had its own English language curriculum designed by a number of Kuwaiti English language specialists (see Table 1). Understanding the objectives of each stage was necessary for the present thesis, both to give the reader insights into how students

learn English in Kuwait and also to facilitate the selection of suitable school-age study participants.

Table 1 English language curricula in Kuwait

Stage	Years	Curriculum	Objectives
Primary	1 st -5 th	Fun with English	<ul style="list-style-type: none"> • Prioritising speaking and listening skills until the 3rd grade. • Learning basic skills such as English letters, phonemes, counting, simple sentences and realising that Arabic and English have different writing systems. • Writing is not emphasised until the 4th grade (Mohammed, 2008).
Intermediate	6 th - 9 th	Target English	<ul style="list-style-type: none"> • Developing students' communicative competence (fluency and accuracy). • Searching for the meaning of new vocabulary using dictionaries. • Using the target language in groups (dialogues, role playing, ask and answer activities). • Students are required to write complex paragraphs through guided composition and to summarise core texts (Al-Rubaie, 2010).
Secondary	10 th -12 th	Over to You	<ul style="list-style-type: none"> • Student-centred approach (Hussein et al., 2011). • Project, group and pair work are considered. • Enhancing students' social and communication skills. • Acquiring various writing skills such as critical thinking, analysing, writing together and engaging in peer review (Al-Rubaie, 2010).

As shown in Table 1, unlike the primary and intermediate stages, the secondary school curriculum emphasises a student-centred approach. Writing short essays, emails, short reports and engaging in projects, pair and group work are emphasised at the secondary stage, as is criticality and analyticity. Therefore, it was reasonable to select secondary schools as a context for the present study. Primary school students were not chosen due to the fact that they do not start writing until the 4th grade. Similarly, intermediate school-age students were excluded since the curriculum emphasises group work in oral activities rather than writing activities. The following section discusses the broad approach to teaching English, highlighting how writing is taught and how collaborative writing activities are integrated into the *Over to You* curriculum.

2.3.1 The broad teaching approach

According to the State of Kuwait's English Language Teaching (ELT) National Curriculum Statement, the secondary school curriculum aims to, "empower learners to acquire effective English language and communication skills for their academic and professional lives through innovating teaching and promotion of independent learning" (Hussein et al., 2011, p. 22). Thus, emphasis is placed on giving students opportunities to solve problems and to exercise their critical thinking skills, both individually and in groups.

This broader aim is achieved by employing an integrated approach, which balances structural and communicative methods to achieve accuracy and fluency. After being taught new linguistic items, students are encouraged to practise using them in communicative activities. The main pedagogical approach to teaching English involves integrating language and content instruction (Hussein et al., 2011). Various teaching approaches such as content-based, task-based and active learning approaches are used. Learners are encouraged to use a variety of language skills whilst studying other subjects like geography, maths and computer science.

At the secondary stage, students are encouraged to engage in oral and written activities to express their own views and emotions, to explain and elaborate on various phenomena and to share knowledge and personal experiences with others (Al-Rubaie, 2010). The primary rationale behind using a variety of approaches is Kuwaiti English language experts' belief that no one single method suits all learners and all contexts. The second rationale is their belief that language is learnt effectively when used for communication in meaningful, purposeful and social contexts (Hussein et al., 2011). Despite the current official curricular emphasis on these approaches, Al-Edwani (2005) and Al-Darwish (2012) found that in practice, some teachers still follow out-dated methodology, characterised by teacher-centred methods, and a predominant usage of drills and question-answer sequences that are controlled by the teacher.

2.3.2 Teaching writing

In terms of writing skills, which are the subject of the current thesis, the curriculum is designed to allow the integration of diverse techniques for teaching writing. Teaching writing in Kuwaiti secondary schools is based on five standards, which aim to develop

students' abilities to write appropriately and accurately to achieve effective communication (Hussein et al., 2011). Standards one and two refer to students' abilities to demonstrate good handwriting, the use of spelling strategies, and writing in cursive. Standard three refers to language structure, meaning that students are expected to demonstrate correct use of various language structures, punctuation, and word usage. Standard four emphasises appropriate writing in English for a variety of audiences, using various genres (e.g., writing emails, newspaper reports, letters, posters. etc.). Standard five focuses on the writing process, breaking it down into the brainstorming, drafting, revising, and redrafting stages.

By the end of the final academic year of the secondary stage, grade twelve students should be able to demonstrate a variety of writing competences. These competences include communicating in clear and appropriate written English for a wide variety of purposes, using a variety of spelling strategies in order to spell the word individually and in context, and completing different writing tasks to demonstrate correct use of language structure, punctuation, and word choice. Students are also expected to acquire critical, analytical and problem solving skills, and show ability to employ these skills using different writing genres such as expressive, expository, functional and persuasive genres. In addition, students should be able to use writing processes to produce well-organised compositions about different real life topics (Hussein et al., 2011).

In order to meet the goals discussed above, teaching English writing at the secondary stage is based on a variety of writing approaches, in response to the need to meet the differing needs of individuals and contexts (Hussein et al., 2011). This view is further asserted by second language writing (L2) researchers such as Hyland (2003), who believe that combining a variety of writing approaches offers ample opportunities for improving language learners' writing skills in different contexts.

Although the ELT National Curriculum Statement does not explicitly prescribe the writing approaches to be followed by Kuwaiti secondary school teachers, the student textbook (Ministry of Education, 2010) and the teachers' professional program leaflets (see section 2.4) suggest the predominance of the product (i.e., writing as being mainly about linguistic with attention paid on the proper use of syntax, vocabulary and cohesive devices), process (i.e., writing is a process which involves several identifiable steps) and genre-based (i.e., focuses on the social and linguistic conventions of different types of

texts) approaches. Various pair and group writing (i.e., collaborative writing) activities (i.e., the joint production of the text by a group of learners) are also included in teaching writing (see section 2.4.1 for more details). Although the student textbook activities reflect all these approaches, the ELT General Supervision handbook seems to emphasise the implementation of a process writing approach, and the practice of peer review as evident from the following statement:

Once the students get used to the stages of planning, drafting, and evaluating their papers, we will feel confident that they can manage carrying out writing tasks. As writing teachers, we need to encourage our students to consider their audience and the rhetorical norms of English while developing their papers. (ELT General Supervision Team, 2012, p. 63)

The ELT supervision team choose and modify writing topics to suit the Kuwaiti students' ages, interests and culture. Culture, Islamic and human values, heritage, economy, politics and sport are key themes within the grade 12 EFL writing curriculum. Students are also required to complete a collaborative writing project upon the completion of each teaching unit (see Appendix A), and to engage in pair writing activities during the lesson.

Although administrators at the Ministry of Education and EFL Supervision Department emphasise the integration of technology as is presented in the following section, teachers are not obligated to use a specific kind of technology when teaching writing. They are, however, advised to ask students to use the Internet at the pre-writing stage of group-writing projects. The next section provides more information concerning technology use in Kuwaiti government schools generally, and in EFL classrooms specifically.

2.3.3 Technology in EFL classrooms

The main goals for teaching English in Kuwaiti government secondary schools are derived from the general aims of the Ministry of Education, one of which is particularly relevant to the present study, emphasising “bridging the digital gap between the reality of the current general education requirements and dealing with advanced technology in various fields of scientific, practical and private life” (The National Report, 2008, p.30). To achieve this broader aim, some objectives were suggested by the ELT supervision team:

- Avoiding the emergence of a new technology-illiterate generation.
- Encouraging the teachers to use information technology and communication facilitates the exploration of diverse sources of knowledge, and the interaction with their community and the world around them.
- Qualifying groups of learners to use and benefit from the advanced technology in their practical and professional lives, and guiding a number of them to specialise and be creative in the field of information technology.

(Hussein et al., 2011, p. 17)

In pursuit of these objectives, the Kuwaiti Ministry of Education launched the first E-learning Regional Conference (ELRC) in March 2011¹ and the second ELRC in March 2013,² to discuss the use of cutting-edge technologies in classrooms. The Ministry also used the E-square³ for the integrated education project in 2013, which aimed to connect school administrators with students and parents outside the school through an integrated online environment. The E-square website included educational forums for all teachers, students and their parents where they can take part in discussions, post questions and communicate with teachers.

The general ELT Supervision Department also created their own YouTube channel⁴ and websites,⁵ which include the latest ELT news, official documents, student exams, and teacher professional development training courses. Teachers are encouraged to share documents, workshop details and presentations, and to have online discussions using the website blogs. Not only teachers, but also students are encouraged to participate in these blogs. The ELT general supervisor for all educational zones Mrs. Sakina Ali has stated that:⁶

The main aim behind such a blog is to provide our learners of English with opportunities to practice their English autonomously outside a formal classroom environment. It also aims at inspiring teachers to further their professional development and boost their

¹ <http://www.redsoft.org/erc2011/home.html>

² <http://erc2013.redsoft.org/en/default.aspx>

³ It is a website designed specifically by Kuwait Ministry of Education to connect teachers, students and parents <http://tb-kw.com/>

⁴ <https://www.youtube.com/user/kwtenglish>

⁵ <http://eltgeneralsupervision.wordpress.com/>

⁶ <http://eltgeneralsupervision.wordpress.com/about/>

teaching abilities and skills by profiting from the materials at their disposal. (Ali, 2012)

On the issue of the use of technology inside secondary school classrooms, Al Sharija, Qablan, and Watters (2012) provide a rich description of actual practices. They found that Kuwaiti government secondary school principals, students and teachers have very positive attitudes towards implementing technology for administrative, teaching and learning purposes. Some teachers have developed interactive CDs, databases for both students and teachers, use data show projectors, the school websites, forums and emails. They found that, “each teacher in the English language department taught an average of eight lessons using ICT tools, including projectors, white board, PowerPoint, linguistic programs” (Al Sharija et al., 2012, p. 93). In addition, some teachers use Excel, educational websites, word processing, Skype and the Internet for both teaching and learning purposes (i.e., they encourage their students to use the Internet to complete science and language projects and engage in active learning).

Although Al Sharija et al. (2012) found a wide range of ICT tools are used in government secondary schools, their study along with the studies of Alharbi (2012) and AlAjmi (2011) report that, technologies are used by teachers to support their existing traditional teaching practices. For example, teachers’ lectures are accompanied by PowerPoint presentations to deliver the lesson, and teachers encourage students to use word processors to replace handwriting. These researchers report that Kuwaiti teachers are enthusiastic about using technologies, however, they argue that this should be supported with a series of professional development workshops to train teachers how to effectively use technology in their classrooms.

Taking into consideration this line of argument, the next section reviews the professional development courses offered to teachers, not only in relation to technology but also in relation to teaching writing.

2.4 EFL teachers

As discussed previously (section 2.3), in Kuwaiti government English is taught by teachers, who are non-native speakers of English, many of whom are from neighbouring countries such as India, Egypt, Syria and Jordan. These non-Kuwaiti language teachers must have teaching qualifications and experience from well-known colleges of

education in their countries. Of the Kuwaiti English language teachers, most attain their teaching qualifications from one of two main institutions: (1) the College of Education at Kuwait University (KU), and (2) the College of Basic Education at the Public Authority of Applied Education and Training (PAAET). In exceptional cases, some Kuwaiti teachers graduate from the College of Art with a Bachelor of Arts degree in English literature and linguistics. These teachers have to pass the ELT supervisors' interview, an examination, and have to attend teacher-training courses to prepare them for teaching.

2.4.1 Teachers training

Language teachers in Kuwaiti government secondary schools are guided, trained and monitored by their school principals, the head of their EFL department (i.e., senior teacher) and the ELT supervision teams. In-service teachers have to attend professional development training in the form of a series of seminars, workshops and training programs. These training programmes cover theoretical, pedagogical, methodological and technological knowledge, aiming to develop the language teachers' performance.

According to the ELT handbook training course (ELT General Supervision Team, 2012), new teachers are trained in a variety of topics as follows: an introduction to the course book components, the use of technologies, classroom management, student characteristics and motivation, creating classroom-teaching materials, teaching composition and translation, an introduction to teaching methodologies, teaching reading comprehension, project work, literature, and progress tests. Emphasis in this chapter is on the training workshops that EFL teachers must attend regarding teaching writing, group work writing activities, and the use of technology.

2.4.1.1 Professional development training (teaching writing)

Teachers are exposed to product writing approach, process writing approach, genre-based writing approach, and pair/group writing activities. The handbook suggests teachers are given practical and explicit guidance on process writing and pair/group writing. Teachers are recommended to teach their students five main stages when writing: brainstorming, planning, writing a rough draft, editing, and writing up. More explanation is given to teachers about these main stages and how to assist students

whilst writing. When giving feedback to students, teachers are advised to focus on content and organisation as well as on language accuracy.

Teachers are also trained in how to design and implement group writing activities and project work. The training course proposes that collaborative project work has three main stages: the “getting started” stage or the “pre-writing stage”; the “project drafting stage”; and the “post-project stage” for reporting, revising and writing (ELT General Supervision Team, 2012). Teachers are expected to understand what is required from them and their students at each stage. In the first stage, teachers are required to do most of the work, guiding students, suggesting ideas, reading resources and discussing students’ ideas. The students are required to search for information with the help of their teachers. One of the main responsibilities of the teacher at this stage is to ensure that students are ready to work and engage with each other, by observing their classroom behaviours. In the second stage, the students and teacher roles change and the teacher simply monitors the students’ works. The students then work together or individually to write down their main ideas and form paragraphs. In the final stage, the students have to write a full report to present their work to their peers and their teacher. At this stage, teachers have two main responsibilities: encouraging students to consider their peers’ comments, and improving the students’ work by adding additional content or language based comments about a student’s writing (ELT General Supervision Team, 2012).

Teachers are trained that the process of editing the final text can be achieved using three ways: teacher editing (i.e., the teacher corrects the students’ grammatical mistakes and provides the correct answer), peer editing (i.e., the students read each other’s texts and correct each other’s mistakes), and self-editing (i.e., students correct their own mistakes). Teachers are encouraged to incorporate the three ways of editing depending on the language level of their students. The integration of these processes is believed to enhance students’ abilities not only to write and go through a series of cognitive writing processes, but also their abilities to criticise and evaluate each other’s writing, and hence engage in critical thinking. Training courses advise teachers to model editing and offer examples for students who do not understand what is expected of them (ELT General Supervision Team, 2012).

2.4.1.2 Professional development training (using technology)

In response to the wide spread use of technology, the Kuwaiti Ministry of Education issued a ministerial decree in the academic year 2008/2009 which asserted that having an International Computer Driving License (ICDL) certificate is a main prerequisite for new teachers (AlAjmi, 2011). Thus, all EFL teachers are now obligated to attend an ICDL training session, since the majority are not technically or pedagogically qualified to embrace technology. This could be due to inadequate preparation programmes at both KU and PAAET colleges, which lack CALL courses in their programs. For example, the PAAET and KU offer one or two introductory and optional courses in CALL. To encourage teachers to use technology, the Ministry incentivises teachers who use technology by offering promotion to increase their salaries (Al-Arabiya News, 2011).

The ELT supervision team organises training workshops, to train teachers to implement the use of technology in their classrooms. The main aim of running these training sessions is explicitly stated in the ELT supervision-training handbook:

Teaching English with technology will be helpful for teachers, teacher trainers, course designers and directors of studies involved in teaching English as a foreign language. It will help those who have little or no experience in ICT tools or who want to use them in the classroom, and also those with advanced experience in the application of ICT, who will find fresh ideas for using ICT tools as well as references to new developments in the field. (ELT General Supervision Team, 2013b, p. 4)

The ELT professional development handbook for newly recruited teachers (ELT General Supervision Team, 2012) recommends that teachers receive a general introduction to the use of technology in language learning, and suggestions for different types of technologies and an explanation of the benefits for teachers and learners. However, these training sessions lack technical training or pedagogical guidance on the use of a particular technology. The training sessions are limited to listing various types of technology (e.g., emails, wikis, blogs and podcasts, YouTube, websites) and their benefits. AlAjmi (2011) confirmed this, when he stated that curriculum and teaching pressures, as well as the lack of authenticity in these training sessions, renders the workshops useless to most EFL teachers.

To illustrate this point further, the content of these training workshops includes two main sections. The first explains the teacher's duties, and the second highlights the students' duties when using particular technologies (e.g., emails, forums, online reading websites, electronic dictionaries, PowerPoint). For example, when using emails, the students are expected to do their homework and send it to their teacher and the teacher then corrects the homework and sends their feedback via email. Although these training workshops are given to all newly employed EFL teachers, there is another more detailed CALL training course called, "using technology in language teaching and learning," that is obligatory for EFL teachers seeking promotion to become senior teachers or supervisors, and optional for other teachers (ELT General Supervision Team, 2013a, 2013b). This workshop compared with the newly-employed teacher training course, offers practical tips on how to use a particular technology in the classroom, explains its benefits, and how to integrate it effectively in classroom activities.

In relation to collaborative writing and Internet project-based assignments, teachers are advised to use technologies such as blogs and wikis. However, when interviewing EFL secondary school teachers, AlAjmi (2011) found that teachers are dissatisfied with the training workshops since they lack explicit guidance regarding how to use technology in the classroom. Teachers reported that the syllabus remains textbook-centred and that the teacher's guidebook does not advise on how to integrate technology into specific lessons.

2.5 Summary

This chapter has situated the study in the Kuwaiti sociocultural context, explaining that the teaching and learning culture there implicitly recognises the superiority of the teacher's knowledge. It also explains how English is taught and highlights the fact that despite the official curricular emphasis on communicative approaches to teaching, some teachers still follow out-dated methodologies and dominate classroom interactions.

The chapter also explains that, whilst teachers seem to receive well-organised professional development training in relation to how to teach writing and implement pair/group writing activities (i.e., collaborative writing), they do not receive explicit pedagogic guidance in how to integrate technology in their classrooms. To address this, this thesis aims to offer guidance for teachers in the Kuwaiti context, by observing

current behaviours and identifying best practice, in terms of how teachers engage with their students when using wikis.

Considering the curriculum's emphasis on process writing, and the existence of pair and collaborative writing activities as part of the ELT curriculum, as well as the Ministry of Education initiatives to embrace technology, the Kuwaiti sociocultural context appears to be an appropriate context for exploring the literature gap identified in the introduction. The next chapter details this literature gap in more depth.

Chapter 3 Collaboration in wiki-mediated collaborative writing activities

3.1 Overview

This chapter discusses the theoretical perspective of language learning in support of viewing social interaction as an important part of language learning (section 3.2), namely Sociocultural Theory (SCT). In line with a SCT perspective, the notion of collaboration is introduced (section 3.3). This is followed by a discussion on how collaboration occurs in a writing activity by focusing on two writing pedagogies, namely process writing with its focus on peer review, and collaborative writing activities (section 3.4). This discussion also highlights the conditions suggested by previous FTF research that promote/hinder collaboration in collaborative writing activities (section 3.4.2).

With the development of technology, wikis have been introduced as a tool for collaborative writing activities in language-learning contexts (section 3.5). This section classifies existing wiki studies into two main research strands according to their focus on either the wiki-threaded discussion mode (section 3.5.1) or the wiki text mode (section 3.5.2). It then presents the conditions that are suggested to promote/hinder S-S wiki collaboration (section 3.5.3). Reviewing studies with contradictory findings suggests the need to examine teacher roles in the wiki context, and the need to examine both wiki threaded discussion and text modes of interaction to fully understand the complexity of collaboration in the wiki context (section 3.5.4). Teacher mediation and its effect on promoting student collaboration from a SCT perspective are also discussed (section 3.6). Following this, empirical evidence from FTF and other online contexts is provided (sections 3.6.1 and 3.6.2). The chapter ends up by identifying the gap in the wiki literature and the proposed research questions to fill that gap.

3.2 Sociocultural Theory (SCT)

SCT highlights the interrelatedness between social interaction and an individual's cognitive development (Donato, 2000; Lantolf, 2000a; Swain, Kinnear, & Steinman, 2011; Zuengler & Miller, 2006). This approach is based on Vygotsky's (1978) work, which hypothesises that learning is a social activity and that all higher mental activities

are mediated (Lantolf, 2000b). Mediation refers to, “the process through which humans deploy culturally constructed artefacts, concepts, and activities to regulate (i.e., gain voluntary control over and transform) the material world or their own and each other’s social mental activity” (Lantolf & Thorne, 2006, p. 79). Mediation is exemplified by the fact that humans often do not act directly on the surrounding physical environment, but rather they use cultural tools to facilitate doing an action. For example, humans rarely use their hands to dig a hole in the ground, but rather use a shovel or backhoe (i.e., physical cultural artefacts) to facilitate the action (Lantolf & Thorne, 2007).

Vygotsky argued that humans also have the ability to use other symbolic artefacts (e.g., numbering systems and language), not to control the physical environment, but to mediate their own or another’s higher mental activities, such as logical thought or problem solving (Lantolf, 2000b; Lantolf & Thorne, 2007; Swain et al., 2011). For example, when adults are asked to multiply two large numbers, they rarely do this using their cognitive ability alone, but resort to external mediation (i.e., cultural artefacts) such as a pen and paper or a calculator to perform the activity (Wertsch, 1998). According to Vygotsky, these cultural artefacts are constructed by human cultures and are passed down and adapted from one generation to another. Thus, SCT assumes that human cognition cannot be studied separately from the society and the culture in which it has developed.

Vygotsky believed that language, amongst other symbolic artefacts, is humanity’s most powerful tool for mediating the way we think and learn (Lantolf & Poehner, 2008). In SCT, language plays two roles: communicational and psychological (Lantolf, 2000b; Mercer, 1995; Rojas-Drummond, Albarran, & Littleton, 2008; Rojas-Drummond & Mercer, 2003; Rojas-Drummond, Mercer, & Dabrowski, 2001; Williams & Burdern, 1997). In other words, language is: (1) a tool whereby people transmit and share knowledge (i.e., communication), and (2) a tool for structuring the content of an individual’s thoughts (i.e., psychological). These two functions are inseparable. Vygotsky clarified this by discussing the inter-mental and intra-mental planes (Gutierrez, 2006; Lantolf, 2000b; Lantolf & Thorne, 2007; Swain et al., 2011; Wertsch, 1991). He posited that the learning process occurs in sequence with knowledge appearing first in social interaction with others (the inter-mental plane), and later becoming internalised individually (the intra-mental plane).

The process of learning in this theory, therefore, occurs between individuals in a culturally organised social activity (Kaufman, 2004; Mitchell & Myles, 2004; Williams & Burdern, 1997). Lantolf and Thorne (2007) clarify that an individual's cognitive development process, "takes place through participating in cultural, linguistic, and historically formed settings such as family life and peer interaction, and in institutional contexts such as schooling" (p.197). During these activities, Vygotsky claimed that a child can perform any task that is beyond the current cognitive ability with the assistance of external mediation. In terms of the classroom context, Lantolf (2000b) explains that mediation can occur between the teacher and students or amongst students themselves (i.e., social mediation), and in the form of artefact mediation (e.g., language or technology). Here, language takes the form of collaborative talk by social mediators (teachers/peers) to develop the cognition of other students (Mercer,1996; Ohta, 2000,2001; Rojas-Drummond et al., 2008; Swain, 2000). Therefore, from a SCT perspective, mediation is essential, however Vygotsky argued that development could only take place if mediation occurs in what he called the *Zone of Proximal Development (ZPD)*. This describes the difference between what a child is capable of doing individually (i.e., their current ability) with what they can perform with assistance from other mediators such as parents, teachers, peers, or cultural tools (i.e., their potential ability).

The assistance that is given to a learner in the ZPD is called *scaffolding* (Wood, Bruner, & Ross, 1976), and is generally given by an expert to a child in the process of solving a problem. The assistance is adapted according to the child's current needs and abilities and can be removed gradually as the child advances (Aljaafreh & Lantolf, 1994; Oxford, 1997). With the assistance of others, the child can appropriate the necessary concepts that were given by the expert (on the inter-mental plane) to solve the problem independently in the future (on the intra-mental plane). It should be noted, however, that transitioning between the two planes is not merely a process of copying (Kao, 2010; Lantolf, 2000a; Wertsch, 1991). The theory assumes the active role of the child to transform what was learnt in interaction with others (i.e., the internalised knowledge) into his or her own personal future ability/skill, which can be adapted and utilised independently in other situations (Lantolf, 2000b; Lantolf & Thorne, 2007; Mitchell & Myles, 2004; Williams & Burdern, 1997). To exemplify this process, when students engage in a classroom activity, their actions or utterances can provide clues about their required needs. A teacher should not be seen as a mere knowledge provider whilst

learners are passive recipients of knowledge, but rather the teacher should consider the level of assistance that should be given to learners to empower them to perform the task independently (Oxford, 1997). From a SCT perspective, it is assumed that development cannot occur if learners are given extra external assistance or if the task is too easy (Ohta, 2000).

Another important aspect of the SCT perspective is its attention to agency (Donato, 2000; Leontiev, 1981). This means that participants import their personal histories, assumptions, beliefs, values and rights into the interaction process. In other words, SCT posits that the interaction between individuals (e.g., teacher and students) reflects the historical development, cultural values and social practices of the societies in which educational institutions exist (Mercer, 1995; Mercer & Fisher, 1992; Rojas-Drummond et al., 2008; Rojas-Drummond & Mercer, 2003; Rojas-Drummond et al., 2001). Therefore, the theory extends beyond limiting the focus on the relationship between the learner and the use of language itself or other mediational tools, to examine the wider institutional and sociocultural contexts as they are presented in language (Lund, 2006; Mercer, 1995). For example, the social institution in which the interaction and learning occurs (i.e., a school or a classroom) and the cultural assumptions (i.e., beliefs) that teachers and students bring to the learning activity can mediate and shape the way people learn and interact (Mercer, 1996; Mercer & Fisher, 1992). This aspect of the theory also highlights an important issue which relates to the success or failure of any educational system, not only in terms of the innate capabilities of students or a teacher's ability to teach, but also the nature and value of the dialogue that occurs between individuals in a particular classroom (Mercer, 1995; Rojas-Drummond et al., 2008).

Sociocultural Theory (SCT) and language learning

Applying a SCT perspective to language classrooms therefore suggests that learning the target language occurs as a result of participating in a joint meaningful culturally organised activity where social interaction takes place (Mitchell & Myles, 2004; Williams & Burdern, 1997). This should not only involve participating in the activity, but also engaging with the artefacts produced, whether written texts or speech (Lantolf & Thorne, 2007; Storch, 2013b). It should be noted, however, that in terms of SCT, learning a language does not occur simply because students have misunderstood each other and need to negotiate meaning (i.e., the process learners go through to reach a

clear understanding of each other's meaning) as hypothesized by cognitive theories, which propose that knowledge exists and develops exclusively in an individual's mind, and prioritise biological mechanisms and internal cognitive processes (Gass & Varonis, 1994; Krashen, 1985; Long, 1983; Pica, 1994; Varonis & Gass, 1985). Rather, SCT assumes that whilst engaging in a collaborative activity, students notice linguistic gaps or problems in their own or another's language production and work together to find a solution by pooling their language knowledge (Donato, 1994; Gutierrez, 2006; Storch, 2011, 2013a, 2013b; Swain, 2000; Swain et al., 2011; Swain & Watanabe 2013). This requires engaging in what Swain (2000, 2006) calls *linguaging*, whereby language is used as a tool to construct knowledge about the target language itself. *Linguaging* implies the process of articulating thinking and it can occur in all learning domains such as mathematic or science. Unlike other learning domains where the use of language mediates learning mathematic skills or scientific concepts, in language learning domain, Swain argued that the use of language mediates language learning and the knowledge that is acquired is the language itself. Language in this case, "constitutes the end as well as the means of learning" (Lamy & Hampel, 2007, p. 33).

Linguaging can occur on an individual level in the form of private speech or between multiple people in the form of a *collaborative dialogue*. It is where evidence of language learning in process can be observed (Swain, 2000, 2006; Swain & Watanabe 2013). In *collaborative dialogue*, speakers engage in a problem solving and knowledge building process (Swain, 2000). In a language learning context, this refers to instances in which learners articulate their linguistic knowledge, refine it as a result of interacting with others, build on each other's linguistic knowledge by questioning another's utterances, and correct themselves and others. It is where learners pool their linguistic resources to build new linguistic knowledge that goes beyond their individual levels of competence (Ohta, 2001; Swain, 2000, 2006). To operationalise *collaborative dialogue*, researchers use Swain and Lapkin's (1995) *language related episode (LRE)* as a unit of analysis, which refers to episodes of student talk in which students reflect on the language they are producing and question their own or another's language use (e.g., lexical choice, mechanics or grammatical form).

It has been argued that engaging in *linguaging* helps students to negotiate their ZPD with more knowledgeable individuals, permitting the co-occurrence of learning and development (De Guerrero & Villamil, 2000; Swain, 2006; Swain & Lapkin, 1998;

Williams & Burdern, 1997). Not only the more knowledgeable individuals, but also the less knowledgeable peers can offer assistance (Ohta, 1995, 2000; Watanabe & Swain, 2007). In language learning contexts, the concept of ZPD has been reformulated by Ohta (2001) to refer to, “the distance between the actual developmental level as determined by individual linguistic production, and the level of potential development as determined through language produced collaboratively with a teacher or peer” (p.9). Through engaging in a *collaborative dialogue* (on the inter-mental plane), the process of internalisation can occur (on the intra-mental plane). This process involves taking new information that was learnt within a social activity and developing the necessary skills to independently apply the newly acquired knowledge (Lantolf, 2000a; Lantolf & Thorne, 2007).

Empirical research investigating language-learning processes from a SCT perspective, provides evidence to support its theoretical assumptions (e.g., De Guerrero & Villamil, 2000; Dobao, 2012; Donato, 1994, 2000; Gutierrez, 2006, 2008; Kim, 2008; Kim & McDonough, 2008; Ohta, 1995, 2000, 2001; Shehadeh, 2011; Storch, 1999, 2001a, 2001b, 2002, 2005, 2008; Swain, 2000; Swain et al., 2011; Swain & Watanabe 2013; Wigglesworth & Storch, 2009). Some studies have examined the development in individual performance by using a process product design (e.g., Gutierrez, 2006, 2008; Storch, 2002; Swain, 1998; Swain & Lapkin, 2001). That is, by focusing on instances of LREs over short periods, researchers have examined whether or not students appropriate these LREs into their subsequent performance (i.e., micro-genetic analysis). Other studies have examined products of collaboration by comparing collaboratively written texts with individually written texts (e.g., Dobao, 2012; Storch, 1999, 2005; Wigglesworth & Storch, 2009), and further researchers have provided evidence using a pre-test and post-test research design (e.g., Kim, 2008; Shehadeh, 2011). A tailor-made test has also been employed in some studies (e.g., Kitade, 2008; Swain, 2000; Swain & Lapkin, 1998). Based on researchers’ examination of the talk that occurs between students, a test is designed to assesses the learners’ abilities to recall previously discussed language knowledge on a subsequent test (i.e., a tailor made test).

Micro-genesis is one of Vygotsky’s genetic concepts, which studies the developmental process that occurs during an activity over a short period of time (Block, 2003; Lantolf, 2000a). Language learning researchers have examined learners’ independent abilities to use the discussed language item successfully with others whilst completing the activity.

Researchers have examined the moment-to moment co-construction of language and the process of language learning as it unfolds during the collaborative activity. For example, Ohta (1995) found that engaging in a collaborative activity provided a social learning context where, not only the more advanced peers helped the less advanced ones, but also the less proficient peers were able to exploit their own language strengths. She argued that learners' strengths could be collaboratively pooled in the ZPD, thereby increasing the accuracy of the language produced.

Similarly, Donato (1994) realised that whilst working collaboratively, language learners of French were pooling their partial knowledge to solve the linguistic problems encountered. He called this process, *collective scaffolding*; with the assistance of several novices, students were able to perform what they could not achieve individually. Donato reported that the majority of socially constructed knowledge was evident in subsequent independent cognitive activities. According to the data presented in his study, students were able to use 24 of 32 discussed LREs correctly in their subsequent individual performances. However, Donato observed that not all groups worked effectively together, and that two types of groups emerged: *collective* and *loosely knit* groups. *Collective groups* refer to groups where evidence of collective scaffolding was observed between group members. In contrast, in *loosely knit groups*, students worked individually and they rarely engaged with each other or in *collective scaffolding*. Gutierrez (2006, 2008) argued that the occurrence of Donato's *collective scaffolding* in students' interactions could be described as high quality collaboration. She observed that students worked collectively within their ZPDs and were able to co-construct language knowledge to overcome any linguistic gaps encountered. However, Gutierrez's study lacks evidence of instances of internalisation in the individual's future performance. Storch's (2002) study was much stronger in terms of evidence. She found that when students interacted in a collaborative activity, they engaged in LREs, which were used later in an individual's own performance. She emphasised that the pattern of interaction affects the retention of knowledge, claiming that it was only when students worked in a collaborative pattern of interaction, that evidence of correctly transferred knowledge was observed.

Other studies have found that collaboratively produced texts are more accurate than individually written texts (Dobao, 2012; Storch, 1999, 2005; Storch & Wigglesworth, 2007; Wigglesworth & Storch, 2009). These studies adopted a product-oriented

approach whereby the texts produced under two conditions (i.e., individually and collaboratively) were assessed in terms of accuracy, fluency and complexity. They reported that collaboratively written texts were both more accurate and of higher overall quality (i.e., well-structured and focused) compared with individually written texts. This finding was attributed qualitatively to the effectiveness of collaboration in the form of *collaborative dialogue*, which involved a high number of LREs that were discussed and incorporated to enhance the accuracy and quality of the text.

Compared with the concept of micro-genesis and the assessment of the quality of the product, Kim (2008) and Shehadeh (2011) have provided stronger evidence by employing a pre-test and post-test research design to explore the effect of collaboration on vocabulary acquisition and the development of writing skills respectively. Kim found that students who worked collaboratively performed significantly better in the immediate and delayed post-tests of vocabulary than those who worked individually. Shehadeh's finding was similarly positive; she found significant differences between experimental and control groups on the post-test performance, reporting that students in the experimental group showed greater improvement in content, organisation and vocabulary on the subsequent individual writing test compared with the control group students who worked individually.

Although both studies reported statistically significant differences between those who worked individually and those who worked collaboratively, Swain and Lapkin (2001) and Storch (2013b) have convincingly argued that employing a pre-post-test design to measure the effectiveness of collaboration is problematic. This is attributed to the fact that it is difficult to predict in advance what learners will discuss and whether the post-test items will correspond to what was discussed during collaboration. Therefore, other SCT researchers have suggested measuring language learning using tailor-made tests.

In order to employ a tailor-made test, researchers must qualitatively analyse the nature of LREs in students' discussion and design the test accordingly. Swain and Lapkin (1998), Swain (2000), Kitade (2008) and Storch (2002) have found that students engage in a *collaborative dialogue* whilst writing collaboratively. These studies have persuasively demonstrated that when learners engage in an activity that is beyond their individual performance, their collective cognitive abilities, in the form of *collaborative dialogue*, may serve to solve the problem. Furthermore, they report that collaboration

could have an effect on subsequent individual performance. That is, most of the LREs that had been resolved correctly in learners' collaborative dialogue were retained in the post tailor-made test.

A review of these empirical studies not only provides sufficient evidence to support the adoption of SCT in the present study, but it also highlights an important issue. The studies of Donato (1994), Storch (2002) and Gutierrez (2006) draw attention to the fact that not all types of interaction are equal, but rather that there are certain types of interaction that are more conducive to language learning than others. Donato's identification of *loosely knit groups*, Gutierrez's discussion of high quality collaboration, as well as Storch's argument that a collaborative pattern of interaction is the most conducive pattern for language learning, are all important findings in terms of broadening the understanding of different types of interaction. Types of interaction between students can differ according to the discourse characteristics and actions that are manifested whilst engaging in the activity. The following section discusses this in detail. Informed by SCT, it aims to present the notion of collaboration as a concept and distinguishes it from other types of interaction.

3.3 Collaboration in language learning

Based on the hypothesis that knowledge is socially constructed, conducting collaborative learning activities is one of the implications of SCT in language learning classrooms (Donato, 2004; Storch, 2011; Swain, 2006). Collaboration is loosely defined as, "the process in which two or more learners need to work together to achieve a common goal, usually the completion of a task or the answering of a question" (Beatty, 2010, p. 109). The task can be verbal, written or an electronic discussion that facilitates social interaction between learners. However, researchers argue that the fact that two learners are working together or interacting verbally in a given task or activity does not mean they are collaborating (e.g., Beatty & Nunan, 2004; Bruffee, 1995; Dillenbourg, Barker, Blaye, & O'Malley, 1996; Donato, 2004; Dooly, 2008; Gutierrez, 2006; Li & Zhu, 2011; Mercer, 1996; Oxford, 1997; Roschelle & Teasley, 1995; Storch, 2001b, 2002, 2013a; Tan, Wigglesworth, & Storch, 2010; Wells & Chang-Wells, 1992). There is a consensus amongst these researchers that there are certain features in learners' discourse and actions that reflect their engagement in a collaborative interaction. According to their arguments, collaboration means engaging in a core meaningful

activity, which involves reciprocal interaction between students. To claim that collaboration occurs, students should engage with one another to discuss the important aspects of the activity. This involves being explicit about the procedure of carrying out the activity and achieving the goal, relying on each other's understanding, and intentions to maintain consensus and a mutual understanding that enable students to complete the activity (i.e., inter-subjectivity).

When collaborating, language is used by students as a tool to share understanding and knowledge, to argue and justify, to seek and give feedback on ideas, to question each other's suggestions or elaborate on them. In other words, their discourse exhibits a level of *mutuality*, which is a core element of collaborative interaction (Storch, 2002; Wells & Chang-Wells, 1992). This means that learners not only share knowledge with others but also engage with each other's proposals, and together construct knowledge that goes beyond each individual's ability. In other words, they engage in *collective cognition*, "reaching insights that neither could have reached alone and that cannot be traced back to an individual's contribution" (Lund & Smordal, 2006, p. 37).

In a language-learning context, researchers argue that collaborative interaction involves *collaborative dialogue* (Gutierrez, 2006; Storch, 2013a; Swain, 2000, 2006; Swain & Watanabe 2013). Students use language to articulate their partial knowledge about the target language. This knowledge is shared with others who engage in *linguaging* by questioning the articulated knowledge of language, proposing alternatives to repair it, and potentially building on it to construct new knowledge. In collaborative interaction, instances of Donato's (1994) *collective scaffolding* are expected to be evident in the learners' discourse whereby groups of students pool their linguistic resources and complete each other's partial linguistic knowledge. *Scaffolding* is not received from only one peer, but is a collective process involving multiple peers.

In addition to these features, other researchers (Beatty & Nunan, 2004; De Guerrero & Villamil, 2000; Donato, 2004; Nelson & Murphy, 1993) have pointed out that learners' actions can be another indicator of collaboration. For example, Donato (2004) states that collaboration means the recognition of other group members as part of the activity and the acceptance of their contributions to serve the main shared goal (i.e., the completion of the activity). This means that in collaboration, students negotiate their ideas rather than imposing them on others (Dillenbourg 1999; Littleton & Hakkinen, 1999). Beatty

and Nunan (2004), Nelson and Murphy (1993), and De Guerrero and Villamil (2000) argue that a learner's willingness to listen to another's suggestions, feedback, ideas and opinions, as well as incorporate another's contributions into the final written text or to solve the activity, are all indicators of collaboration.

Establishing a social relationship as a result of a jointly constructed goal is also a feature of collaboration (Curtis & Lawson, 2001; De Guerrero & Villamil, 2000; Donato, 2004; Johnson & Johnson, 1996; Li, 2014; Nguyen, 2011). This means that as a result of working towards a common and joint goal, students maintain a sense of group social cohesion. Therefore, collaborative discourse involves instances of social talk, whereby students monitor their work, praise the work of others and encourage each other over the course of completing of the activity. Humour or off-task social conversation may also occur to maintain the participants' social relationship (Fung, 2010). The frequent use of the first person plural pronoun *we* to denote joint responsibility towards the task is also another indicator of collaboration (De Guerrero & Villamil, 2000; Li & Zhu, 2011; Storch, 2001b, 2002; Tan et al., 2010).

These features of collaboration do not allow this term to be distinguished from *cooperation*, especially since these two terms have been used interchangeably by some authors (e.g., Dickinson, 1986; Gonzalez-Edfelt, 1990; Greenfield, 2003; Kohonen, 1992), whilst at the same time a clear distinction has been made by others (Beatty, 2010; Bruffee, 1995; Dillenbourg et al., 1996; Dooly, 2008; Oxford, 1997; Roschelle & Teasley, 1995; Storch, 2013a; Underwood & Underwood, 1999). For the purpose at hand, it is necessary to distinguish between the two terms explicitly. Broadly speaking, *cooperation* is defined as working on a task that was structured by the teacher and to which each student contributes equally to complete the task (Oxford, 1997; Storch, 2013a). In other words, it is a "process meant to facilitate the accomplishment of a specific end product or goal through people working together in groups" (Dooly, 2008, p. 21). The teacher gives structured task directions and assigns specific roles to students to assist them in completing the task successfully. *Collaboration*, on the other hand, entails more than accomplishing the task; it is about engaging mutually with others in the process of accomplishing that task (Dooly, 2008; Storch, 2002, 2013a, 2013b).

A practical distinction is made by Roschelle and Teasley (1995), Underwood and Underwood (1999), and Storch (2002, 2013a, 2013b) who believe that in both situations,

the learners work together towards achieving a shared goal. However, achieving that goal may involve a clear division of labour in which the learners cooperate by each taking responsibility for sub-tasks and working independently, and then combining their respective contributions. In contrast, in collaborative learning, learners share the labour (co-labour), rather than working in parallel on separate portions of the task.

Although these arguments seem satisfactory, the distinction appears to be a very broad one, which involves some ambiguity. In relation to this, Dillenbourg et al. (1996) argue that distinguishing between these terms based on division of labour is not necessarily clear-cut. They claim that some spontaneous division of labour may also occur in collaboration. Thus, they provide another distinction which states that in cooperation, the task is split hierarchically into independent sub-tasks and coordination is only required for assembling partial results. In collaboration, on the other hand, the cognitive processes may be divided into inter-related layers and coordination occurs throughout. For example, in a writing activity, students may cooperate by dividing the activity into sub-units (e.g., writing the introduction, body and conclusion) and individually writing these parts, and coordination occurs at the end when they assemble these parts to write the final text. In contrast, when collaborating, coordination occurs between students during all aspects of the writing process and rather than writing sections individually, they engage in a *collaborative dialogue* while co-construct the text together.

Based on these studies, collaboration in this thesis is defined as the co-construction of the wiki text, whilst having an on-going online discussion that reflects the mutual cognitive and social engagement of the participants involved. Co-construction of the text means that the writing acts of the students are not limited to adding new ideas individually in parallel, but also include editing each other's texts (grammar and content) and expanding on each other's ideas. *Mutuality* of the discourse (Storch, 2002) can be presented in the form of the discourse that students use in the wiki threaded discussion and their actions/edits (i.e., whether students assist each other, plan the work collectively, build on each other's ideas, seek help from others, challenge or engage with other's contributions, expand on each other's ideas, and edit the text based on each other's suggestions). As language learners their discussion should involve aspects of *collaborative dialogue* (Swain, 2000), whereby students discuss the accuracy or the meaning of what has been written by others in the wiki, and build new meaning and knowledge as a result of this interaction. Social engagement refers to the friendly

atmosphere students create to reinforce group cohesion. The next section discusses more specifically how a writing activity provides a context for social interaction and collaboration.

3.4 Collaboration in writing activities

Two main approaches emphasise social interaction and collaboration in a writing activity, namely the process approach to writing with its focus on peer review, and collaborative writing activities (Storch, 2005). These approaches consider writing as a social activity; they both emphasise the social interaction between the reader and writer and vice versa (Bruffee, 1984). As Arndt (1993) pointed out, “writing is seen not as a de-contextualized solo-performance but as an interactive, social process of construction of meaning between writer and reader” (p.90). The following sections start first by defining the process writing approach and the effectiveness of teacher feedback and peer feedback as two types of feedback in SL/FL writing classrooms. It also highlights research findings in relation to the factors that limit the effectiveness of peer feedback. Having discussed process writing more broadly, collaborative writing activities that involve aspects of process writing are then discussed. A distinction is made between peer feedback/review and collaborative writing activities.

3.4.1 Process writing and teacher/peer feedback

The process writing approach refers to student engagement in a cyclical approach, whereby emphasis is given to the multiple stages of the writing process such as pre-writing or planning (i.e., generating ideas and gathering information), drafting/writing (i.e., writing ideas with the focus on fluency rather than accuracy), responding (i.e., the teacher or peers responding to students’ writing), revising (i.e., re-examining the text to see how effectively it conveyed the meaning to the reader, and focusing on improving the content and organisation of the ideas), editing (i.e., editing the text for grammar, spelling, punctuation sentence structure and its accuracy), and publishing (Hyland, 2003; Mutsuda, 2003; Seow, 2002). It focuses on how ideas are generated, refined, developed and transformed when the writer writes and revises the text. It emerged as a reaction to the product oriented-approach, which emphasises the mechanical aspects of writing, such as focusing on the grammatical aspects, syntactical structure and imitating modes. In contrast to the product approach which focuses on the final product, the process

approach emphasises that writing is a developmental and iterative process, and raises the writers' awareness in terms of focusing on developing meaning through the process that they go through to write the text (Hyland, 2003). This does not mean however, that in process writing, the final product is dissociated (Seow, 2002). Rather, the process approach aims to systematically teach students problem-solving skills connected with the writing process that will enable them to notice goals at each stage, which could consequently improve the final product.

The process writing approach places a greater emphasis on teacher and peer feedback as important components of writing that provide a real audience for the text (Hyland & Hyland, 2006a). At this stage, social interaction and collaboration can occur; students discuss ideas with others and the feedback they receive, "informs the writing process, permeating, shaping and moulding it" (Arndt, 1993, p.91). Providing feedback can focus either on the form (i.e., providing feedback on grammar, punctuation, rewording and other aspects of language accuracy), or on the content (ideas and organisation). These types of feedback can be revision-orientated, which will likely lead to revision in the text, or non-revision-orientated, which will not lead to revision or text improvement (Liu & Sadler, 2003). Whether the teacher or peers give feedback, the aim is to help the writer to develop ideas, make them clearer and to improve the quality of the text. In her study, Paulus (1999) reported that both types of feedback are important and do significantly improve the essay score of students.

The importance and the effectiveness of teacher feedback has been largely positive, as studies report that teacher feedback is often incorporated into students' texts which consequently lead to improvement in the text (Connor & Asenavage, 1994; Ferris, 1997, 2006; Junju & Jing, 2012; Paulus, 1999; Saito, 1994; Tsui & Ng, 2000; Yang, Badger & Yu, 2006). Empirical research in language learning contexts has reported different types of teacher feedback. Ferris (2006) distinguishes two types of teacher feedback: direct and indirect feedback. Direct feedback means, "the provision of the correct linguistic form by the teacher to the student" (Ferris, 2006, p. 83). This could involve crossing out an unnecessary word or phrase, or writing the correct word or form. In indirect feedback, the teacher does not provide the correct form, but leaves students to find the errors and only assesses them by, for example, underlining the mistakes. These types of feedback affect how students engage in the revision process. For example, Saito (1994) and Wen (2013) realised that when students receive correct and direct feedback

on their writing, they simply read their corrected errors instead of putting a lot of effort into revision or rewriting. However, when the teacher adopts the other approach and gives only clues for students to make corrections by themselves, students are likely to engage and revise their errors.

Evidence suggests that language teacher feedback tends to be limited to correcting students' grammatical mistakes rather than directing their attention to revising ideas. Truscott (1996), Yang et al. (2006), and Zamel (1985), for example, found that teachers mainly correct the students' grammatical mistakes, which according to Truscott demotivates students in their writing activities. Junju and Jing (2012) also reported that Chinese EFL teachers provide feedback on sentence construction errors, word choice errors and verb errors, and mainly adopt the direct feedback approach, which turns teachers into what they called, "grammar teachers". Eighty-nine per cent of the teachers in their study declared that they consider themselves responsible for correcting students' errors. This teacher practice hinders student progress and fails to help students learn on their own. The teachers' main concern was to help students to avoid making errors in their text rather than to help them to learn on their own.

Empirical research also suggests that teacher feedback not only communicates beliefs about the language or content, but also negotiates human relationships. Hyland and Hyland (2006b) found that most teacher comments are praise, and teachers rarely post negative comments on students' writing. They also reported that teachers use some mitigation strategies such as combining criticism with praise; teachers respond as ordinary readers rather than expecting and expressing elements of doubt or uncertainty in their comments, in order to maintain harmony in their relationships with students. According to Hyland and Hyland (2006b), these strategies not only maintain the student-teacher relationship but, "also moderate the teachers' dominant role and tone down what might be seen as over-directive interventions in students' writing" (p.212). Despite this finding, they also noted that 70% of these comments on form (i.e., language use) are unmitigated. This is because teachers in their study felt, "more comfortable in adopting an authoritative stance in a domain where their expertise was likely to be assured and less threatening to students" (Hyland & Hyland, 2006b, p. 218). They also found that the sociocultural context plays an important role in shaping how teachers comment in their feedback to students, as they stated that:

Teachers' comments are always related to specific pedagogic and interpersonal goals that both help to construct and are influenced by the teaching context. Commentary is always situated in an on-going dialogue between teachers and students, and we respond not just to texts but also to our knowledge of our learners' personalities and our experience of the entire classroom situation. (Hyland & Hyland, 2006b, p. 213)

Peer feedback is another type of feedback that can be employed through the process of writing. It is considered as "a formative developmental process that gives writers the opportunities to discuss their text and discover other's interpretations of them" (Hyland & Hyland, 2006a, p. 6). It involves student interaction in commenting on each other's drafts with the intention of assisting their peers to revise and improve their writing. Through engaging in peer feedback, students have the opportunity to understand the reader's confusion caused by poor representation of ideas or incorrect usage of words or verb tense (De Guerrero & Villamil, 2000; Leki, 1990; Nelson & Murphy, 1993; Paulus, 1999; Tsui & Ng, 2000; Villamil & De Guerrero, 1998, 2006).

Whilst providing feedback, students are found to either focus on form or on the content. Peers engage in collaboration by providing suggestions (i.e., pointing out a direction for change), alteration (i.e., providing specific changes), clarification (i.e., probing for explanations), or evaluating whether their peers' writing is good or bad (Liu & Sadler, 2003; Woo et al., 2013). Despite the fact that the peer review process involves reader comments on the form and the content of the text, evidence suggests that L2 students are mainly concerned about correcting the grammatical aspects of the text rather than its content (Deni & Zainal, 2011; Junju & Jing, 2012; Leki, 1990; Paulus, 1999; Sengupta, 1998; Villamil & De Guerrero, 1998). Evidence also suggests that students make corrections on items that were originally accurate and expect teachers to correct their linguistic grammatical errors (Deni & Zainal, 2011; Junju & Jing, 2012; Sengupta, 1998). In relation to these findings, Tsui and Ng (2000) argued that it is cognitively more demanding for students to comment on content changes, as they are still developing their language skills.

Implementing a peer review activity in process writing has important benefits for L2 writers (De Guerrero & Villamil, 2000; Hyland & Hyland, 2006a; Min, 2006; Stanley, 1992; Tsui & Ng, 2000). It provides a real audience for the text and enhances students' awareness of the audience. For example, Tsui and Ng (2000) found that students became

more conscious about their writing if they knew that their peers would read what they had written. Other studies have found that peer review provides opportunities for social interaction and collaboration; students discuss, exchange alternative points of view, provide suggestions and clarify their intended meaning to the reader to gain mutual support (De Guerrero & Villamil, 2000; Liu & Sadler, 2003; Yang et al., 2006; Villamil & De Guerrero, 1998, 2006; Woo et al., 2013). Students were found to incorporate what they discussed with their peers into their final text, which improved their final texts (Villamil & De Guerrero, 1998). Through engaging in a peer review process, students reported their learning from each other by observing how others were writing and developing ideas (Tsui & Ng, 2000). Furthermore, the peer review process fosters ownership of the text; “peer comments are not seen as authoritative; students feel that they have autonomy over their own text and make their own decisions on whether they should take the comments on board or not” (Tsui & Ng, 2000, p. 167). Some students in Tsui and Ng’s (2000) study made their own decisions about whether to make changes or not. Other students reported that it is highly important to preserve the other writer’s original meaning as a way of showing respect.

The above positive views on peer feedback, however, have not gone unchallenged. Empirical studies have also reported that the sociocultural context plays an important role in shaping the way students interact, which limits the effectiveness of the peer review process (Hyland & Hyland, 2006a; Nelson & Carson, 1998, 2006; Sengupta, 1998; Tsui & Ng, 2000; Yang et al., 2006; Zhang, 1995). Hyland and Hyland (2006a) pointed out that English as a second language (ESL) students, who are accustomed to a teacher-centred classroom where teachers are highly directive often welcome and expect teacher feedback rather than their peers’ feedback.

Other studies provide empirical evidence that supports Hyland and Hyland’s (2006a) argument. For example, in Zhang’s (1995) study in which the majority of participants were from an Asian cultural background, in Tsui and Ng’s (2000) study with ESL secondary school students in Hong Kong, and in Hamouda’s (2011) study involving Saudi EFL students, teacher feedback was favoured by students as opposed to peer feedback. Students in Tsui and Ng’s study considered the teacher as a figure of authority and incorporated most of the teacher’s comments into their final text no matter whether they agreed with them or not. Similar findings were also reported by Nelson and Carson (1998), who found that Chinese and Spanish ESL students favoured the teacher’s

feedback over their peers' feedback, and incorporated their teacher's comments into their final texts more than their peers' comments. Other studies suggest that students do not trust peer feedback and favour teacher feedback due to their doubts about their peers' language proficiency (Nelson & Murphy, 1993; Paulus, 1999; Saito, 1994; Tsui & Ng, 2000, Yang et al., 2006). Yang et al. (2006) found that EFL students at a Chinese University rejected their peers' feedback because they felt that it was incorrect; some students in their study reported that they would not accept their peers' feedback until they consulted the teacher or checked a grammar book. The students incorporated teacher comments without question, which improved their final texts, whilst reservations about the usefulness of peer feedback were expressed.

Sengupta's (1998) study of secondary school ESL students in Hong Kong (15-16 year olds) reported that despite the fact that students were trained in how to engage in a peer feedback process, the students did not perform any revisions of their texts as a result of suggestions by peers. Similar to other research findings, interview data in her study suggested that students were more concerned about the teacher who knows better English. Their concerns about their individual performance in exams and their inability to correct grammatical errors affected how they engaged in the peer review process. Although students were trained to focus on form and content, it was found that the students focused on accuracy of language (i.e., form) and preferred to get the correct form from the teacher. They still believed that, "accuracy is the province of the teacher" (Sengupta, 1998, p. 22). Students felt that evaluation is something to be carried by an expert (i.e., the teacher) rather than by their peers. These students' beliefs affected how they engaged in the peer review process; they saw their responsibility as doing what the teacher asked. They regarded the teacher as the only reader who could give them accurate knowledge and consequently improve their grades in exams.

Culture also plays an important role in shaping the process of peer review. That is, Nelson and Carson (1998), Ho and Savignon (2007), and Carson and Nelson (2006) found that Chinese ESL students rarely criticise, disagree or claim authority, whereas Spanish ESL students often point out problems for further revision in their peers' writing. Carson and Nelson (2006) also discuss the concept of face in Chinese cultures, where there is less concern for the self and more concern for the other. They noted that whilst engaging in peer review, Chinese student participation is limited because they do not want to vocalise thoughts and ideas that may embarrass or disagree with the writer's

ideas. Others have found that students are dissatisfied with their peers' feedback, which tends to be of low quality or what they call, "rubber-stamped comments" (e.g., the organisation is okay or your ideas are too vague). These comments tend to be general and do not specify what the problems were to improve the text (Leki, 1990; Nelson & Carson, 1998; Tsui & Ng, 2000). For example, Deni and Zainal (2011) found a low quality of comments (i.e., students often making confusing or inappropriate comments), and observed low receptivity from other peers.

3.4.2 Collaborative writing activities

Collaborative writing activities in essence reflect the process writing approach that involves multiple authors who go through the process writing stages mentioned above (i.e., planning, drafting etc.) together rather than individually. In a language-learning context, Storch (2011) defines a collaborative writing activity as, "the joint production or the co-authoring of a text by two or more writers" (p. 257). Co-authoring is what distinguishes collaborative writing from other types of writing. This means that participants engage together in all the processes of writing by generating ideas, deliberating on the text structure, and engaging in editing their own and each other's writing, rather than contributing to only one phase of the writing, or adding text without engaging with what others have written (Dale, 1994; Storch, 2013a). This means that the product of the collaborative writing activity is a jointly shared text that cannot be reduced to the separate contributions of individuals.

Although collaborative writing activities involve the process of peer review, there are essential differences in terms of the aims and rationale for conducting both activities. According to Storch (2005), in peer review the writer owns the text and other students have no ownership of the text and have little power to change it. Other students may give comments and feedback, but it is the writer's decision whether to consider them or not (Nelson & Murphy, 1993; Tsui & Ng, 2000). In contrast, the aim of a collaborative writing activity is to help students to work on all aspect of the text and to feel joint ownership of the responsibilities for that co-constructed text. Further, students are assumed to engage in a collaborative pattern of interaction whereby they become more receptive to their peers' suggestions, contributions and feedback, whereas in a peer review activity, the writer may ignore other student's comments. Another difference between both activities is that in a collaborative writing activity, feedback is provided on

the entire process of text creation whereas in peer review, feedback is provided on the product once the writing activity has been completed by the writer (Storch, 2013b).

3.4.2.1 Collaboration in a collaborative writing activity

Returning to the SCT perspective (section 3.2), when collaboration occurs in a collaborative writing activity, two artefacts can be explored by the student: the verbalized thought and the co-authored text (Storch, 2013b). Here, the text is expected to mediate students' thinking and to provide opportunities to *talk about the text* (Wells & Chang-Wells, 1992). In the words of Lotman (1988), the text is seen as a *thinking device*, since it allows for the generation of new meanings and reflection on its interpretations. This involves discussion about the text's content, ideas, and metalinguistic talk about the language used (i.e., talk about the text). In so doing, students exhibit what Wells and Chang-Wells (1992) call the *epistemic mode of engagement with the text*. Engaging epistemically means:

The text is treated, not as a representation of meaning that is already decided, given, and self-evident, but as a tentative and provisional attempt on the part of the writer to capture his or her current understanding as the writer or some other reader dialogues with the text in order to interpret its meaning. (Wells & Chang-Wells, 1992, pp. 139-140)

When writing a text, students may not always engage in such an epistemic stance collaboratively, rather they may adopt a cooperative pattern in which instances of talking about the text rarely occur. The distinction between cooperation and collaboration in a collaborative writing activity is based on two notions: equality and mutuality (Li & Zhu, 2011; Storch, 2002, 2013b; Tan et al., 2010). Whilst the former refers to the extent to which each learner in the group contributes equally to the writing activity, the latter describes the level of a learner's engagement with another's contribution. Based on their empirical research, Tan et al. (2010), Storch (2002), Bradley et al. (2010) and Arnold et al. (2012) have observed that some students adopt cooperative patterns whilst others adopt collaborative ones. In a cooperative pattern, all students contribute to the text equally but their level of mutuality is low. That is, all participants work towards finalising the text, but there is a division of labour; all participants focus on their individual sections but do not engage with each other's writing. Little engagement occurs with the suggestions or contributions of others, and

there is no evidence of *collective scaffolding* or *collaborative dialogue*. Students rarely deliberate on their own or each other’s language production. In this case, the final text is a composition made up of individually composed sentences with students rarely editing or revising one another’s work. In contrast, a collaborative pattern involves a high level of equality and mutuality. As discussed previously, high mutuality is what distinguishes collaboration from cooperation, even in a collaborative writing activity. It refers to, “interactions that are rich in reciprocal feedback and sharing of ideas” (Storch, 2013a, p.1).

Tan et al. (2010), Storch (2002), Bradley et al. (2010), Arnold et al. (2012), and Li (2014) have further examined the characteristics of the collaborative pattern and state that learners engage with each other’s contributions, so that there is a perceived level of *collaborative dialogue* or what Dale (1994) calls, *dialogic interaction*, whereby language is used as a means to construct meaning. When collaborating, group members co-construct ideas together, build on each other’s suggestions, deliberate over their own and each other’s language use, read and assess their constructed sentences, and change them where necessary. In other words, they work as a collective, drawing on their resources and scaffolding each other during the collaborative writing activity (Donato, 1994; Li, 2013; Li & Zhu, 2011; Storch, 2013b). In addition, the text is co-constructed, with each student not only adding to the text, but also extending, elaborating and editing what others have written. To distinguish between being collaborative or non-collaborative in a collaborative writing activity, Storch (2001b,p.45) provides a continuum based on different interactional characteristics, including linguistic features, text construction behaviours, and metatalk (see Figure 1).

Figure 1 Storch’s (2001b) collaborative / non-collaborative continuum

	Non- Collaborative	→	Collaborative
Linguistic features	First and second person pronouns Presence of directive		Predominance of first person plural pronoun Few or absence of directives
Text construction behaviours	Text constructed with little negotiation (one partner may dominate) Some disagreement over task management		Text co-constructed – each partner adding to and extending on text construction
Metatalk	Few LREs initiated via requests Responses tend to be non-interactive Some revision made without consultation		Many LREs initiated via request Responses interactive and often incorporated Evidence of scaffolding

Maintaining trust, commitment and respect for other group members is also considered important during a collaborative writing activity (Fung, 2010; Nguyen, 2011). The degree of success in collaborative writing depends on the social relationships that participants form whilst carrying out the activity. Based on her observation of three groups of students writing collaboratively, Dale (1994) pointed out that social factors play an important role:

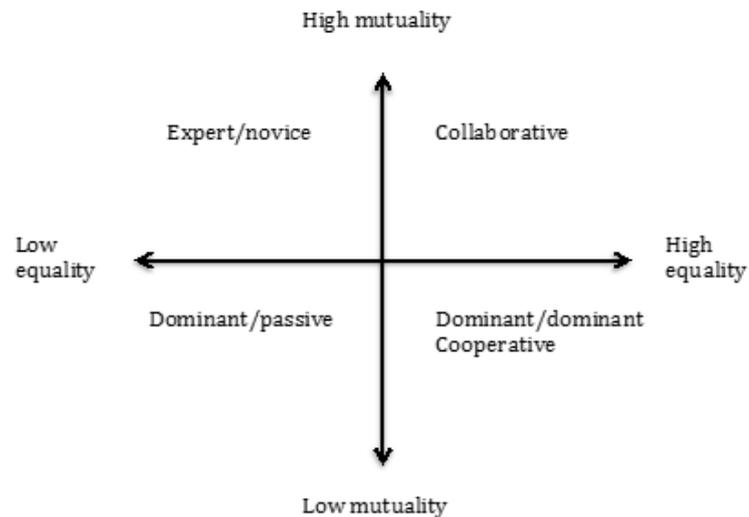
In collaborative writing, words do not just come together. It is people who come into contact through the medium of words; what students write is a product of their social relations. Only those groups in which students respected each other and in which all members' input was valued could function effectively. (Dale, 1994, p.341)

As discussed above, students do not always engage in a collaborative pattern of interaction. Empirical studies of FTF collaborative writing have explored conditions that may promote collaboration generally and *collaborative dialogue* specifically, whilst composing a collaborative text. These studies also extend the understanding of which factors may impede students' collaboration in a collaborative writing activity. These studies are discussed in the following section.

3.4.2.2 Promoting collaboration in a collaborative writing activity

Three main variables have frequently been found to promote *collaborative dialogue* in collaborative writing activities (Storch, 2013b). These are: the type of writing task (e.g., De la Colina & Garcia Mayo, 2007; Kim & McDonough, 2008; Storch, 2001b; Storch & Wigglesworth, 2007; Swain & Lapkin, 2001; Wigglesworth & Storch, 2009), group formation (e.g., Dobao, 2012; Lesser, 2004; Ohta, 1995; Storch & Aldosari, 2013; Watanabe & Swain, 2007), and the medium of interaction (e.g., Tan et al., 2010). For the present study, discussion is limited to the effect of the medium of interaction, since this study focuses on one type of technology (for a detailed discussion of the other variables see Storch, 2013b). First, however, Storch's (2002) study is highlighted. The rationale for discussing this study is to reiterate a point mentioned previously (sections 3.2 and 3.4.2.1), that other patterns of interaction might also occur in collaborative writing activities. This is based on Storch's findings with 10 pairs of ESL students in an Australian University. Analysing the audio-recording using the notion of equality and mutuality led her to construct a model of dyadic interaction (see Figure 2).

Figure 2 Storch's (2002) model of dyadic interaction



The discussion so far has focused on cooperation and collaboration, however there are other patterns of interaction such as *expert/novice* and *dominant/passive*. As shown in Figure 2, in *expert/novice*, mutuality is high and equality is low, with the knowledgeable peer adopting the role of expert and encouraging the passive student to contribute to the activity. In contrast, in *dominant/passive* interaction, both mutuality and equality are low, with one student dominating the activity the other remaining passive. Whilst in collaborative and *expert/novice* patterns instances of knowledge transfer were observed, Storch (2002) noted many missed opportunities for knowledge transfer, and no instances of knowledge transfer in the other patterns.

Based on this model, Tan et al. (2010) explored the effect of the medium of interaction on how students compose a collaborative text. Their study was conducted with 12 beginner learners of Chinese (6 pairs) who were asked to complete seven collaborative writing activities in two different contexts; FTF and online (i.e., chat). Their findings suggest that from a SCT perspective, chat as a mediational tool changes and shapes the nature of students' interaction. They observed more instances of collaborative and cooperative patterns of interaction during the chat interaction compared with FTF, where instances of *dominant/passive* or *expert/novice* patterns were predominant. This claim is based on evidence from both contexts in a comparative design study; students' dialogues

were presented and analysed and frequencies of patterns were also calculated. Evidence suggests that writing collaboratively in both modes of interaction generates collaborative behaviours, such as generating ideas, deliberating on language use, elaborating on each other's suggestions and ideas, the use of *we*, and seeking and giving feedback on each other's writing and suggestions. However, in FTF contexts, some students remain passive whilst others dominate the interaction. In the online context, on the other hand, all students have equal opportunity to contribute to the task, and some pairs undertake collaboration not only by contributing to the activity but also by mutually engaging with one another's contributions. Tan et al. (2010) attributed these findings to the mode of interaction; working synchronously allows equal participation and more time to think about each other's contributions. Despite the study's fruitful findings, the effect of engaging twice in similar activities, was not considered by the authors. That is, it may not be solely the mode that affected the interaction, but also the fact that the students were asked to engage first in FTF and then again in the online context to perform the same activity, which could have affected their interactions and resulted in more collaborative and cooperative patterns in the online mode.

3.4.2.3 Hindering collaboration in a collaborative writing activity

Despite researchers' efforts to explore factors that may promote collaboration, research findings suggest that other issues may impede collaboration. These issues have been reported in studies aimed at exploring students' perceptions and experiences of interacting with others in collaborative writing activities (Al Ajmi & Ali, 2014; Dabao & Blum, 2013; Hyland, 2003; McDonough, 2004; Nelson & Murphy, 1993; Storch, 2005). Storch (2013b) argues that understanding perceptions and experience is important since they shape how students behave in a particular activity. This argument is supported by research findings, which have reported issues related to such factors as prior language learning experiences, formal schooling systems, and teachers' and students' socially constructed and context dependent beliefs. The findings suggest that insufficient language ability (Al Ajmi & Ali, 2014; Storch, 2005), resistance to considering writing as a social activity (Dabao & Blum, 2013; Storch, 2005), and some cultural beliefs about the roles of teachers and students (Dabao & Blum, 2013; Hyland, 2003; McDonough, 2004; Nelson & Murphy, 1993) can affect the way students interact in a collaborative writing activity.

A study by Storch (2005) with 23 adult ESL learners at an Australian university, and another by Al Ajmi and Ali (2014) with 64 EFL learners and five teachers of English at an Omani public college reported that some students were reluctant to participate or collaborate with other group members due to their insufficient L2 abilities. The data from Al Ajmi and Ali's questionnaire and Storch's student interviews showed that students may feel embarrassed about talking in front of their classmates and avoided contributing to save face. In addition, Al Ajmi and Ali found that many students preferred division of labour, since some students dominated the whole task without giving others the chance to express their views. Storch also noted that some students were reluctant to participate in the activity because they still saw writing as a solitary activity. Dabao and Blum (2013) reported similar findings in their research involving 55 intermediate level Spanish learners. They reported that some students found it hard to write with others and preferred to write individually in order to save time and adopt their preferred writing style.

Other important issues are related to participants' sociocultural beliefs. The studies by McDonough (2004) with Thai EFL learners, and Dabao and Blum (2013), found that some students have a fear of criticising each other's ideas. Based on interviews and questionnaire data, they found that although students were aware of grammatical errors, they felt uncomfortable correcting them. This was because students wanted to preserve their friendly relationship with others. Storch (2013b) has pointed out that other cultural issues may relate to the viability of peer feedback. As mentioned previously (section, 3.4.1), in some cultures and especially in SL/FL contexts, learners may doubt their peers' feedback (Hyland, 2003). For example, McDonough (2004) reported that students did not see their peers as valuable sources of language knowledge and tended to rely on their teacher's feedback. Furthermore, teachers themselves expressed concerns about group writing, believing that learning opportunities might not occur because students focus on the communicative goal and may produce less target language output.

The previous sections discussed the theoretical underpinnings of SCT, and defined collaboration with a precise focus on collaborative writing activities. It is suggested that from a SCT perspective, a collaborative writing activity provides a context for social interaction where instances of language learning in process are observable in students' *collaborative dialogue* (Swain & Watanabe 2013). Issues that may promote and hinder collaboration in an FTF context were also discussed. One of the main arguments that is

worth foregrounding is the effectiveness of technology as a mediational tool in shaping the way students interact (Warschauer, 2005). Tan et al.'s (2010) study provides valuable evidence that the mode of interaction can increase not only opportunities for participation, but also instances of collaboration. However, in Tan et al.'s study, a non-collaborative-oriented tool (i.e., chat) was used to carry out a collaborative activity (i.e., collaborative writing). With the advancement of technology, other collaborative writing tools such as wikis have been designed to facilitate collaboration in composing texts.

The next section introduces wikis and language learning research findings regarding their effectiveness in supporting students' collaboration during collaborative writing. The review highlights two important aspects from previous research. Firstly, research findings in terms of S-S interaction, whilst composing a wiki collaborative text are discussed. Secondly, what has been suggested by wiki research for promoting S-S collaboration is explored. The section ends by identifying the literature gap upon which this study is based.

3.5 Wiki-mediated collaborative writing activities

A wiki is a type of computer supported collaborative learning (CSCL) tool designed to support the process of collaborative writing (Godwin-Jones, 2003; Leuf & Cunningham, 2001; Warschauer, 2010; Warschauer & Grimes, 2007). From a SCT perspective, a wiki is seen as a mediational tool that helps students to focus on a shared goal (Javela, Bonk, & Sirpaletti, 1999).

A wiki is an asynchronous collaborative tool that has an open editing system. In essence, it consists of an expandable and thematically organised collection of interlinked web pages. Navigating through these web pages gives readers the opportunity to expand their reading on a particular topic of interest (Godwin-Jones, 2003; Parker & Chao, 2007; Yates, 2008). The technical design of the wiki platform includes three main function tabs: editing, a record of history, and a discussion space. Each tab has its own function; for example, the editing tab converts the wiki page into an editable page, which allows a reader to write things on the wiki page. The history page includes a chronological record of all the editing acts that have been performed on a specific wiki page. Every wiki page also has a discussion space; it is an online wiki threaded discussion where participants can discuss issues related to the wiki page content. The platform can be used for public

(e.g., Wikipedia) or private purposes (e.g., classroom projects) and it can be highly secure. As it has an open editing system, users can make decisions about whether to allow public users to view and use the editing tab or to restrict editing to registered users only.

The content of the wiki page is not pre-determined but rather emerges as a result of its users' participation and collaboration. The read/write functionality allows users to easily edit an existing page by adding new information, deleting existing information, or modifying what other users have written (Godwin-Jones, 2003). The availability of the editing history allows users to observe the constant changes that have occurred throughout the writing process (Kessler, 2009). Reverting to earlier versions is also permitted in the wiki context. The wiki page has been described as a multimodal online context since it allows the incorporation of texts, images and videos to make meaning (Hampel & Hauck, 2006).

There is a growing interest in the application of wikis in the field of CALL. This is due to the wiki affordances and benefits for language learners. A number of CALL researchers have explored their effectiveness in promoting various skills, such as: writing and summarising skills (Alshumaimeri, 2011; Mohammed, 2010; Wichadee, 2010; Wong, Chen, Chai, & Gao, 2011), developing content and grammatical knowledge (Castañeda & Cho, 2012; Pellet, 2012), promoting collaborative behaviours and assisting collaborative writing activities (Arnold, Ducate, & Kost, 2009, 2012; Bradley et al., 2011; Chao & Lo, 2011; Elola & Oskoz, 2010; Kessler & Bikowski, 2010; Kost, 2011; Li, 2013, 2014; Li & Zhu, 2011; Nguyen, 2011), focusing on form and developing autonomy (Aydin & Yildiz, 2014; Kessler, 2009), and promoting the revision processes between students (Díez-Bedmar & Pérez-Paredes, 2012; McDonald, 2007; Woo et al., 2013). Across studies, there is a general consensus that the ability to edit the wiki page offers ample opportunities for language learners to engage critically with what others have written (i.e., the wiki text), as well as to edit and change it. The discussion pages allow students to engage in various collaborative behaviours, since they provide opportunities to talk about the text. In other words, the wiki technical design allows students to engage in what Wells and Chang-Wells (1992) call *an epistemic mode of engagement* with the text.

From a review of the studies of the use of wikis in the language-learning context, it has been noted that researchers have tended to focus on either analysing the threaded mode (i.e., the online discussion that occurs between students) or the text mode (i.e., analysing the process of text construction by tracking the edits on the page history). Based on this, the next section presents a synthesis of the research findings in relation to the nature of students' interactions in the wiki threaded and text modes. Since presumably discussion precedes writing, the section begins by reviewing studies on the threaded mode followed by studies on the text mode. This is followed by a discussion of issues that were found to promote/hinder students' online wiki collaboration.

3.5.1 Wiki threaded mode interaction (i.e. wiki discussion)

Some studies on wikis in language learning and other contexts have examined the type of discussion students engage in whilst composing the collaborative text (Arnold, Ducate, Lomicka et al., 2009; Bradley et al., 2011; Cullen et al., 2013; Elola & Oskoz, 2010; Grant, 2009; Lee, 2010; Li, 2013, 2014; Li & Zhu, 2011; Lund & Smordal, 2006; Nami & Marandi, 2013; Nguyen, 2011). The data from these studies involved threads/comments posted by students in the wiki discussion pages. Content analysis and computer mediated discourse analysis (CMDA) were the main analytical methods used to examine students' online behaviour. The majority of these studies were conducted in the university context with L2 Spanish or German learners (Elola & Oskoz, 2010; Kost, 2011; Lee, 2010), Chinese EFL learners (Li, 2013; Li & Zhu, 2011), Vietnamese EFL learners (Nguyen, 2011) or Iranian EFL learners (Nami & Marandi, 2013). Other studies have examined the interaction between graduate FL students at three universities (Arnold, Ducate, Lomicka et al., 2009), the interaction between Malaysian ESL student teachers (Cullen et al., 2013), or between English for specific purposes (ESP) learners at an Austrian and American university (Alyousef & Picard, 2011; Li, 2014). A few studies have also been conducted in a school context, for example with EFL high school students in Norway (Lund & Smordal, 2006), with secondary school students in the UK (Grant, 2009), and with primary school students in Hong Kong (Woo et al., 2013) and in Spain (Pifarre & Staarman, 2011).

In these studies, wikis provided an online context where students collaborated with each other whilst composing collaborative online texts. The research reports that students engaged in a number of collaborative behaviours whilst working together, with minimal

or no teacher intervention. For example, some studies found evidence of *planning talk* (Cullen et al., 2013) or what Li (2013) labelled *content discussion*, whereby students collaborated by planning together, proposing ideas, evaluating the appropriateness of each other's suggestions, and exchanging resources (e.g., website links). Others, such as Nguyen (2011), Elola and Oskoz (2010), Bradley et al. (2011), and Kost (2011) found that students focused on improving the content of their wiki page by deliberating on the organisation of written ideas, brainstorming ideas, and exchanging resources such as grammar websites. Arnold, Ducate, Lomicka, et al. (2009) reported that the highest number of wiki comments involved planning; students attempted to organise group work, set shared tasks, and initiate activities. Bradley et al. (2011) noted student involvement in *arguing and discussing activity*, in which students engaged in dialogic interactions where the primary focus was developing a shared understanding of ideas. Their data included instances of students exchanging and discussing their knowledge of the meaning of culture. Pifarre and Staarman (2011) argued that engaging in these behaviours allows learners to establish an, "exploratory inter-subjective orientation" (p.197), whereby learners try not only to develop shared understanding and find commonality, but also accept alternatives and disagreement which helped them to write the collaborative text.

Whilst composing the wiki text, studies also reported evidence of *collaborative dialogue* or what some studies refer to as *language talk* (Cullen et al., 2013) or *language negotiation* (Li, 2013). Some studies (Elola & Oskoz, 2010; Lee, 2010; Li, 2013, 2014; Li & Zhu, 2011; Nami & Marandi, 2014; Nguyen, 2011; Woo et al., 2011; Woo et al., 2013) observed collaborative behaviours in students' talk. For example, in the Lee (2010) and Nguyen (2011) studies, students engaged in language related talk, which led to constructing knowledge about the target language. Students commented on each other's language use, seeking and giving feedback on the grammatical accuracy of the text. In the presentation of the data of the students' discussions it was evident, especially in Lee's and Nguyen's studies that scaffolding occurred between high and low proficiency level students. Students collectively addressed their own and each other's linguistic errors and jointly offered solutions for the linguistic gaps encountered.

Similar behaviours were reported in the studies of Li and Zhu (2011), and Li (2013; 2014) who used Storch's (2002) mutuality and equality criteria to describe the patterns of student interaction. They identified a *collectively contributing/mutually supportive*

pattern of interaction, which was characterised by a high mutual discourse, and which facilitated progression through the ZPD. In a *collectively contributing/mutually supportive* pattern of interaction, all group members worked as a *collective*; the students engaged with each other's contributions and deliberated over language use, and through instances of scaffolding, students pooled their linguistic resources and consequently built linguistic knowledge. Similar to Lee (2010), they noted that *collective scaffolding* within a student's ZPD helped to bridge the gap in the learners' linguistic knowledge. Li argued that mutual interaction assisted students in performing what they would not be able to achieve individually. In other words, students were "simultaneously individual novices and collectively experts" (Li, 2013, p. 752). These claims were all based on data from S-S interaction on the wiki discussion pages.

By the same token, Kost (2011), and Nami and Marandi (2014) reported instances of *collaborative dialogue*. For example, Kost claimed that students had on-going discussions about grammatical issues related to the content of the wiki text and requested help in editing it. Kost claimed that suggestions and comments were all incorporated into the final wiki text, which improved the text's quality. However, the study did not provide sufficient data that represented students' on-going discussion about the grammar or content of the wiki text. Furthermore, her claim that students incorporated what they discussed into the wiki text was not supported by evidence in the final product. These limitations were not observed in Nami and Marandi's (2014) study, which documented the interactive nature of S-S interaction on the wiki discussion page. Their findings show how students collaborated even though they were not asked to engage in a collaborative writing activity, as in other studies (i.e., the wiki was used here as a tool for online discussion only). They reported that the most observed collaborative behaviour between students was asking and answering questions (68%). Students also commented on their peers' essays (16%). However, students rarely criticised their peers' writing (4%). Similar to other studies, the data presented demonstrated student engagement in *collective scaffolding*; the questions posted were followed by a number of replies whereby students shared ideas, agreed on what others had suggested and elaborated on the meaning of vocabulary. Furthermore, students engaged in a *collaborative dialogue* whereby they deliberated over the grammatical accuracy of each other's posts. When one student sought help from other group members, help was offered by referring to the textbook materials or to the teacher's instructions. Furthermore, the data indicated that the fact that someone had already responded to the

question did not prevent others from commenting and posting additional answers. Because of this, Nami and Marandi argued that these collaborative behaviours turned individual knowledge into distributed knowledge.

Collaborative behaviours are not only limited to focusing on the accuracy of the text; the majority of these studies note that students engaged in collaborative behaviours when commenting on the content of the text. For example, Nguyen (2011) found that students' collaboration at the socio-cognitive level was the highest; students mutually reflected on each other's writing by critically evaluating ideas, giving explanations and offering clarification to others. Arnold, Ducate, Lomicka, et al. (2009) also reported instances of reciprocal interaction, however compared with Nguyen's (2011) findings, these instances tended to be at a basic level. That is, students engaged mainly in planning talk and sharing knowledge, with few instances of giving feedback or help, and no instances of challenging that led to constructing new knowledge.

Compared with other studies, Arnold, Ducate, Lomicka, et al.'s (2009) study lacked qualitative analysis of the S-S discussion; the researchers presented quantitative content analysis of each individual wiki post rather than presenting the sequence of student discussion. Despite this limitation, their study draws attention to the fact that not all students worked in the same way. Based on their analysis, they divided the students into *high and low collaborative* groups. This observation was also documented in Li and Zhu's (2011) study, which found that in addition to the *collectively contributing/mutually supportive* pattern, some students engaged in a *dominant/withdrawn* and *authoritative/responsive* patterns. In a dominant/withdrawn pattern, instances of nonreciprocal interaction, ignoring each other's ideas and disagreement between students were observed. Students avoided engaging with each other's contributions and no evidence of collective scaffolding was noted. In an authoritative/responsive pattern, one student established authority and there was no equal contribution. Students rarely engaged collectively, and the use of the second person pronoun was predominant.

In addition to the above-mentioned collaborative behaviours, studies have reported that interacting via a wiki creates a friendly collaborative learning atmosphere. As mentioned before (section 3.3), Donato (2004) emphasises that building coherence within and amongst social relationships is essential in collaborative language learning. Studies by

Arnold, Ducate, Lomicka, et al. (2009), Nguyen (2011), Lee (2010), Cullen et al. (2013), and Woo et al. (2011) reported instances of social interaction between group members. Student interactions involved socio-affective comments to express emotions, to show awareness of other group members, and to establish group cohesion. For example, Lee (2010) found that students posted flattering comments on their friends' work and greeted each other. According to Lee's interview findings, 50% of students declared that interpersonal rapport affects their degree of collaboration with others. Likewise, Nguyen (2011), and Woo et al. (2011) reported instances of students expressing emotions, offering encouragement, and talking about personal interests. They both acknowledged that besides the socio-cognitive collaboration, the social interaction in the form of socio-affective comments helped to maintain the collaborative learning community. Cullen et al. (2013) and Li (2013) called such interaction *social talk*, which refers to instances of interaction in which students maintain a friendly online context by greeting, encouraging and using humour. Both studies presented data that showed how students greeted one another, posted encouraging words such as, "good work for today guys! Well done" (Cullen et al., 2013, p. 5), and promoted humour with such comments as, "what you said is so funny that I cannot help laughing" (Li, 2013, p. 756).

In Alyousef and Picard's (2011), and in Li and Zhu's (2011) studies, within a *collectively contributing/mutually supportive* pattern, it was observed that students used the first person plural pronouns *we*, *our* and *us* to establish rapport and a sense of joint commitment whilst communicating with others. Nami and Marandi (2014) found instances of expressions of gratitude, whereby students thanked the teacher and peers for sharing their ideas with others. In addition, Cullen et al. (2013), Nguyen (2011), Nami and Marandi (2014), and Alyousef and Picard (2011) reported instances where students used emoticons to express their positive feelings.

In addition to the online interaction, which was characterised as socially oriented collaborative interactions, Li and Zhu (2011) reported that students developed rapport in their FTF relationships after engaging in wiki-based collaborative writing activities. At interview students explained that although some students had no acquaintance with others prior to the activity, their social relationships developed afterwards. Therefore, they argued that, "students' relationships were co-constructed through interacting on the wiki collaborative writing task" (Li & Zhu, 2011, p. 15).

3.5.2 Text mode interaction (i.e. editing behaviours)

Whilst the previous section describes how students engage in discussions on the creation of their texts, this section presents research findings in relation to how students jointly co-construct a wiki text. Similar to threaded mode studies, the majority of L2 research has been conducted at tertiary levels, with some studies having been conducted in school contexts (Lund & Smordal, 2006; Lund, 2008; Mak & Coniam, 2008; Woo et al., 2011; Woo et al., 2013). Studies have also been conducted with EFL pre-service teachers and German as a SL or FL learners in American universities (Arnold, Ducate, & Kost, 2009, 2012; Kessler, 2009; Kessler & Bikowski, 2010; Kost, 2011). Others have conducted their studies with ESP learners in higher education in Australian, Swedish and American universities (Alyousef & Picard, 2011; Bradley et al., 2010; Li, 2014), and with EFL learners at a Chinese University (Li, 2013), a private Turkish university (Aydin & Yildiz, 2014), and a Taiwanese university (Lee & Wang, 2013; Lin & Yang, 2011).

The focus of this line of research explores how students write the text together, what writing behaviours they engage in and whether they co-construct the text collaboratively as opposed to writing individually. Co-constructing the text collaboratively implies engaging with what others have written, editing their contributions, and elaborating on what was added rather than simply adding chunks of texts with little regard for what others have written (Arnold et al., 2012; Bradley et al., 2010; Kessler & Bikowski, 2010).

Research findings on wikis in this regard are inconclusive, with some studies suggesting that students engage in a high level of collaboration, whilst others report contradictory findings. For example, Bradley et al. (2010), Kessler and Bikowski (2010), and Aydin and Yildiz (2014) reported that students in their studies engaged in highly collaborative interaction in which students collaborated with each other to jointly write the text. Instances of adding new and deleting existing information, elaborating, reorganising, and synthesising information, and adding links were reported in Kessler and Bikowski's (2010) and Aydin and Yildiz's (2014) research. Generally, students in both studies focused on editing ideas (i.e., the content) rather than on grammatical errors (i.e., the form). The researchers noted that students primarily added new ideas, deleted existing ones and elaborated on the text. Instances of synthesising, reorganising and adding links were the least common writing behaviours. In both studies, instances of peer correction

and self-correction were reported. In Aydin and Yildiz's study, instances of peer correction outnumbered those of self-correction, indicating a high level of collaboration. Although few instances of editing grammar were reported in the Kessler and Bikowski and the Aydin and Yildiz studies, Elola and Oskoz (2010) and Bradley et al. (2010) found that when students worked collaboratively they paid attention to the form and content of both their own and each other's wiki texts. That is, students not only added texts to the wiki page, but also revised existing texts by refining ideas and correcting grammatical mistakes.

Similar writing behaviours were also reported by Mak and Coniam (2008), who found that students moved gradually from adding ideas in the initial stage of the activity to expanding, reorganising and correcting their own and each other's language errors in the later stages. Likewise, Woo et al. (2011) found that students engaged in two types of writing behaviours: content edits (e.g., adding new ideas, elaborating on existing ones, reorganising/replacing existing ideas), and form edits (e.g., grammar, spelling, punctuation and formatting). Similar to other studies (Aydin & Yildiz, 2014; Kessler & Bikowski, 2010; Mak & Coniam, 2008), Woo et al. found that adding new ideas was the most observed writing act, whilst editing form was observed the least (7 instances out of 84). In the same vein, Li (2013) reported instances of addition, deletion, rephrasing, reordering of ideas and correction, and like other researchers, she reported many instances of addition. However, in contrast to the findings of previous studies, she also reported high levels of grammar correction of each other's texts indicating high level of collaboration.

Some of these studies reported that not all students wrote collaboratively. Other patterns of interaction may also occur whilst composing the text in a wiki. For example, Kessler and Bikowski (2010) and Bradley et al. (2010) reported low levels of collaboration, as not all students participated equally. In Kessler and Bikowski's study, the majority of students contributed only once to the wiki page, whereas Bradley et al. noted other patterns of interaction, such as *no visible interaction* and a *cooperative pattern*. Five groups out of twenty-five exhibited a *no visible interaction* pattern, with students posting full texts that were not touched or changed by themselves or others. A similar number of groups were *cooperative*; group members acted individually in parallel, adding new ideas without engaging with the text of others (i.e., editing the form or

content of others). Furthermore, students in these groups did not engage in online discussions of the content or form of the wiki texts.

Although in the Kessler and Bikowski (2010) and Bradely et al. (2010) studies, some students were collaborative whilst others were not, Lund (2008) argued that collaboration does not occur from the minute the wiki is introduced to the students. Based on her observation, she realised that students move sequentially and gradually between two types of collaborative activities: from *local content development* to *distributed collective network production*. In contrast to other studies, Lund focused on how students use the hyperlinks to develop the content of the wiki page. In *local content development*, students developed the wiki page content and added ideas. In *distributed collective network production*, students used the wiki affordances to create links as invitations to others to contribute to their page. According to Lund (2008), collective network activity involves high collaboration where knowledge is collectively co-constructed in the wiki context (i.e., the emergence of a collective ZPD). She claims that the students gradually work in a mixed activity mode. However, this claim was not evident in her data; she presented two interactional sequences where students engaged in these activities sequentially yet separately.

Studies by Kessler (2009) and Arnold et al. (2009, 2012), report that some students collaborate whilst others cooperate. For example, although the main conclusion of Kessler's study suggests that language learners attend to meaning (i.e., content edits) and ignore accuracy (i.e., form), when writing collaboratively in the wiki, he noted a number of instances of peer form editing. Students were more willing to edit the grammatical mistakes of others rather than their own. Self-editing was mainly related to content whereas form edits were mostly performed on their peers' texts and overall, form edits were few compared with meaning edits. Kessler claimed that students did not strive for accuracy due to the *teacher-less* context and the low impact of errors on meaning.

These observations were also reported in Arnold et al. (2009, 2012) research, which compared unstructured classes (i.e., the teacher gives feedback at the end) with structured ones (i.e., the teacher guides the writing process and provides feedback). In the unstructured class, students worked without explicit teacher guidance; similar to Kessler's (2009) study, students focused on content edits rather than on form. In

contrast, in the structured class form revisions were prioritised. In a subsequent study, Arnold et al. (2012) noted that students in the unstructured class worked more collaboratively, editing the form of each other's texts more frequently (69%) than their own texts. However, students in the other two classes adopted a cooperative approach, revising the form of their own texts (61%) rather than other's text. In all classes, students worked cooperatively in editing content (i.e., adding ideas to, rather than editing each other's content). Content revision was usually done on a student's own writing (64% in the structured class and 82% in the other two classes). In the unstructured class, the researchers noted that students adopted a collaborative pattern when editing the form (i.e., students were more willing to edit the grammatical errors of others). Similar findings have been documented in other studies (e.g., Lee, 2010; Lin & Yang, 2011; Lund, 2008), where students were more willing to edit the form of someone else's text rather than changing the content.

In another study, Alyousef and Picard (2011) reported that students favoured working individually on sub-topics (i.e., cooperatively) rather than collaboratively. This finding was based on their observation of students' writing behaviours, which involved a high number of additions. In contrast to the findings of other studies, no instances of deletion or editing each other's form or the content of other peers' texts were reported, and only one instance of collaboration was reported for students who attempted to summarise and elaborate on what another had written. The participants stated that they avoided these acts because they believed that they would not be rewarded for them and that their contributions might not be better than the one deleted.

In Kost's (2011) and Lee and Wang's (2013) studies, some students worked *cooperatively*, depending on their language ability, to accomplish the writing task. For example, in Kost's study some students divided the work and worked cooperatively as *writers* and *grammar checkers*, whereas in Lee and Wang's (2013) study, more capable peers took charge of the writing task, whilst less capable peers suggested ideas or managed the format of the wiki page. These findings support Li's (2013) argument that in the wiki context, the role of an expert is fluid, since each member in the group may offer different expertise and contributions.

3.5.3 Promoting/hindering wiki collaboration

Although the studies reviewed on the threaded discussion and text modes are largely positive, suggesting that students engage in high levels of collaborative behaviours whilst composing their wiki texts, some issues were noted that seem to either promote or hinder S-S collaboration. These are related to the nature of the task (Alyousef & Picard, 2011; Aydin & Yildiz, 2014; Lee, 2010; Mak & Coniam, 2008), the group dynamic (Arnold, Ducate, Lomicka et al., 2009; Lee & Wang, 2013; Li, 2013; Li & Zhu, 2011), the technological affordances (Cole, 2009; Lee & Wang, 2013; Zorko, 2009), the effect of the sociocultural and institutional context (Arnold et al., 2012; Lee, 2010; Lin & Yang, 2011; Lund, 2008), and the teacher's presence (Arnold et al., 2012; Kessler, 2009; Lin & Yang, 2011; Woo et al., 2013; Zorko, 2009).

Some studies report that the nature of the task affects the degree of student collaboration and involvement. For example, Lee (2010) found that students collaborate more in open-ended writing tasks. Her findings suggest that students write and revise more when the topic is interesting and allows freedom and creativity, as well as the incorporation of personal interests, whilst at the same time focusing on form. She noted more instances of collaboration when students were asked to write about culture than to narrate a story in the past tense. Mak and Coniam (2008) and Alyousef and Picard (2011) noted that the design of the task might affect the degree of collaboration. For example, Mak and Coniam (2008) emphasise the importance of the social context and task authenticity. They claim that providing a real audience (e.g., a parent) for students' wiki work (e.g., a school brochure) motivates students to participate, which is an essential component of successful collaboration. Alyousef and Picard note that students in their research failed to collaborate due to the task design. For example, in their study students were told that they would be assessed on the number of their writing contributions rather than on how well they worked with others. In other words, the task's design seemed orientated towards cooperation rather than collaboration.

Out of these studies, Aydin and Yildiz's (2014) study was more systematic and more focused on the effect of the task. They compared three meaning-focused tasks (an argumentative essay, a decision-making task, and an informative task) and examined the effect of these tasks on students' collaboration. Their conclusions suggest that the type of task affects the level of collaboration. That is, instances of peer correction

outnumbered those of self-correction in the argumentative (89%) and decision-making (88%) tasks, compared with lower instances of peer correction during the informative task (32%). Regardless of task type, however, they noted that most of the revisions were content rather than form focused. Arguably, collaboration occurred primarily when students were engaging in argumentative and decision-making tasks.

Group dynamic is also found to play a role in promoting or hindering collaboration. Studies by Arnold et al. (2012) and Arnold, Ducate, Lomicka, et al. (2009) note that the success of collaboration in the wiki depends on the group members themselves. They note the emergence of self-appointed leaders in every group, and the way leaders interact with the group members affects their collaboration. For example, Arnold, Ducate, Lomicka, et al. (2009) noted that in highly collaborative groups, the leader adopts a social-emotional type of leadership style, whereas in low collaborative groups, the leader adopts a more directive and dominating role. These leaders' behaviours affect other group members' behaviours. For example, students in low collaborative groups contributed less and depended on the leader to perform over half of the contributions. In contrast, in the highly collaborative groups, students shared ideas, complimented each other and organised the work together.

Similar to Arnold, Duacte, Lomicka, et al.'s (2009) research, the students in Arnold et al.'s (2012) study did not work equally, which affected the degree of their collaboration. Instances of *free riders* (i.e., students who did nothing to complete the task and let their group members complete the task), *social loafers* (i.e., students who contributed something but less than their fair share), and *leaders* were documented. Although Arnold et al. (2012) did not explain how these roles affected the degree of collaboration, Lee and Wang (2013) provided more explanation. Their students' interviews revealed that students appreciated working with partners who shared the workload, ultimately motivating them to be more collaborative by sharing ideas and contributing more to the activity. However, when roles were not taken seriously, students tended to be less collaborative.

The technical affordances of wikis are also mentioned in the previous studies discussed, which reported that students' collaboration is affected by the design of the wiki. In some studies, the wiki design was found to inhibit collaboration. For example, Zorko's (2009) study with university level ESP students reported that students experience difficulties

saving and editing the wiki page, which affects the way they work with others. Lee and Wang (2013) reported that asynchronous (delayed-time) communication increases students' frustrations. The interview data they presented suggested that students complain about waiting for other's feedback. Furthermore, some students face difficulties expressing and defending their viewpoints in delayed time communication. In Zorko's study, students overcame this technical issue by using Messenger, phone calls and emails, which according to Zorko hindered their visible collaboration in the wiki. Similarly, in Cole's (2009) study, 37% of participants experienced technical difficulties when using wikis.

Some contextual and institutional factors are also reported as hindering collaboration, especially those that are related to how language and/or writing skills are taught, the individual ownership of the text, a teacher's perceived superiority and authority, and social relationships. For example, Lund (2008) claims that collaboration does not occur immediately, as there are some instances of reluctance to edit other content due to, "the historically solitary and private nature of writing" (p.49). She explains that students are used to solitary writing, where individual assessment and grades are prioritised over group work. This psychological ownership of the text is also reported by Arnold et al. (2012), who found that students rarely changed the ideas of others, and focused primarily on form by correcting the grammatical aspects of the text. Arnold et al. (2012) argue that such behaviour could be rooted in previous educational experiences, "where L2 writing assignments are mainly [seen as] a way to assess the mastery of linguistic code as opposed to communicative acts" (p.441). In the studies of Lee (2010) and Lin and Yang (2011), student interview data suggested that some students were reluctant to edit each other's ideas due to insufficient confidence in their own language skills. Furthermore, in Lee's (2010) and Arnold et al.'s (2012) studies, some students still viewed the teacher as the most reliable source of knowledge. They considered the teacher as the authority who has the right to edit their wiki text, rather than valuing other peers' edits. Other studies have found that students value group harmony. For example, Lin and Yang (2011) and Li (2012) with Chinese students, Nguyen (2011) with Vietnamese students and Lee (2010) with American learners found that students from these cultures tended to remain polite and to rarely criticise or challenge each other's ideas. Students valued their social relationships with others and were reluctant to claim authority and change the ideas of others. Nguyen (2011) found that most of the students' posted comments praised other's writing.

The presence of the teacher is also mentioned in other wiki research (Arnold, Ducate, & Kost, 2009, 2012; Kessler, 2009; Lin & Yang, 2011; Nami & Marandi, 2014; Woo et al., 2013; Zorko, 2009). It is worth noting, however, that the focus of these studies is not on teachers but rather on S-S interaction. Arguments about the teacher's role emerge from analysing S-S online interaction. For example, Kessler (2009) concluded his study by suggesting that a teacher should be present in the wiki context. This argument was based on his observation of students' low level of contributions and less attention to grammatical errors. Students interviewed suggested that due to the absence of the teacher, students tolerated some grammatical errors that did not seem to impede meaning. A similar observation was reported in the Arnold et al. (2012) study discussed earlier, which compared three classes; one unstructured and two other structured classes. Their findings suggest that when students worked autonomously, they tended to edit their peers' texts more than their own, and hence worked collaboratively. The situation was different in the other two structured classes, where students were found to focus on their own text, revising and editing their own content and form rather than engaging collaboratively with each other's texts. The authors attributed this finding to the nature of the teacher's involvement; students in structured classes may have been influenced by the teacher's feedback, leading them to focus on their own text rather than that of others.

In other studies, the teacher's role is shown to promote effective S-S collaboration. For example, Nami and Marandi (2014) claim that in their study, in the initial stage of the activity, students directed most of their questions to the teacher, since Iranian students are accustomed to teacher-centred classrooms. However, in the wiki context, the teacher opted to delay her responses in order to stimulate S-S discussion. This, according to the authors, stimulated more S-S collaboration and by the fifth week, the interaction had become student-centred. Woo et al. (2013) found that the presence of the teacher was essential, since their students rushed to participate whenever the teachers posted a comment. Despite these arguments, Nami and Marandi's claim that the teacher intentionally delayed her responses to promote S-S interaction was not supported in their data, which lacked instances of teacher comments accompanied by time stamps, or teacher interview data in which the teacher affirmed such behaviour. Woo et al. (2013) were more precise, as they presented the time stamps of the teachers' comments, and demonstrated how students' comments and editing behaviours followed her comments. Their discussions, however, were not of how teachers promoted S-S collaboration but how they helped to push students to work in the online wiki context (i.e., increase their

participation). Furthermore, their main focus was on the types of student revision behaviours (i.e., process writing and peer review) rather than on teacher roles.

Although the previous sections, especially the discussion of student interaction in the threaded and text modes levels are promising, there are a number of other studies, which report contradictory findings. These studies are reviewed in the following section.

3.5.4 Contradictory studies

Some studies have found that S-S wiki interaction is basic and does not reflect collaborative interaction. Few instances of collaborative behaviours have been documented and students are passive and reluctant to participate in the activity. Some of these studies were conducted in primary and secondary schools in the UK and Norway (Grant, 2009; Lund & Smordal, 2006), whilst others took place in the university context with undergraduate students in the UK and in Australian universities (Cole, 2009; Judd et al., 2010; Wheeler & Wheeler, 2009), and with student teachers in Singapore (Lim et al., 2010).

For example, in the Cole (2009), Lim et al. (2010) and Judd et al. (2010) studies, students engaged passively in the wiki collaborative writing activity. In Cole's study, 68% of the students visited the wiki site but none of them posted a single comment during the five-week course. In Lim et al.'s (2010) study, although students participated, most of their edits were of grammatical errors and the content remained largely unchanged. Student writing behaviours focused on adding ideas, and there was an absence of discussion between participants about their writing. In Judd et al.'s (2010) study, although the researchers tried to prepare students for collaboration and designed the activity in a way that fostered collaboration, students worked individually rather than collaboratively or cooperatively. In both studies, there was little use of the wiki's commenting function, and most comments received no response by others. In Judd et al.'s research students did not work collaboratively and 69% of the edits were performed during the last week of the activity, with 44% on the last day of the task. The majority of students (81%) contributed a minimum of two edits to meet the requirement for task completion. Some pages received no comments and the maximum number of comments was 17 comments on one of the pages. Very little evidence of *collaborative dialogue* was observed, with students rarely responding to each other's comments. Whilst Judd et

al.'s (2010) study lacked further explanation of the student behaviour observed, Cole (2009) interviewed students in order to understand the reasons behind their passive engagement. Participants stated that academic pressure from other subjects, a lack of confidence and interest, as well as the unattractive design of the activity were the main factors.

In school contexts, Grant (2009) and Lund and Smordal (2006) reported similar findings; they both found little evidence of collective cognitions. As discussed (section 3.3), collective cognition refers to the process by which two or more people collectively reach an insight that cannot be traced to one individual's effort/contribution. In Grant's study with three high school classes (year 9), students participated in the online activity without their teachers, who opted to step back as a way of increasing the students' independence in the wiki context. Many non-collaborative behaviours were observed, such as editing that met with quarrels or refusals, labelling the page with personal names, few instances of editing each other's work, no evidence of discussion, and comments being ignored by others. Her data included instances of the following interactions between two students: one deleted information, which was then restored by the original writer using the wiki's reverting function. In Grant's study, student interviews suggested that editing each other's work was not considered a useful or desirable act. Students declared that they viewed their teachers as the most important audience, and for this reason they focused on their own writing, rather than engaging with the work of others.

Lund and Smordal's (2006) study reported similar findings, with little evidence of collaboration between students and little use of the wiki comments function (i.e., threaded discussion mode) to engage in a discussion about the content of their wiki page. Students were asked to engage in two wiki activities; *USA culture* and *Funky Town*. Students did not embrace collaboration from the start, but continued to practice the socially cultivated, individual way of writing. In the classroom (offline mode), Lund and Smordal claimed that the teacher played a significant role in helping students to edit each other's work and therefore helped them to build collective knowledge. A log of the wiki history however, showed low levels of collaboration, with few editing acts of spelling mistakes. As a way of promoting S-S collaboration, the second assignment was designed to give students more time and allow more teacher online intervention. Results of the second assignment suggested that students participated by adding ideas to the wiki

content, which resulted in a more cohesive product, but their collaboration remained low. Students were reluctant to edit each other's work or to use the wiki discussion pages, and the teacher did not engage in the online mode.

All these studies reporting lack of collaboration argue that introducing a wiki is not about introducing new software to the classroom, rather it is about introducing new learning norms and practices that are characterised by collective and collaborative ways of learning. This creates a tension between current school practices and institutional cultures, which adopt an individualistic approach to learning (e.g., individual ownership of a text, grading and assessment) and the collective wiki activities (Grant, 2009; Lim et al., 2010; Lund, 2008; Lund & Smordal, 2006). This argument reiterates the point discussed previously about social and institutional factors that hinder S-S collaboration.

Grant (2009) and Lim et al. (2010) argue that the non-collaborative behaviours and general lack of collaboration they documented were due to students importing traditional classroom practices into the wiki. For example, in Lim et al.'s (2010) study, students viewed editing each other's ideas or deleting their writing as a culturally rude practice. In Grant's study, editing another's work was not aligned with the accepted shared practices of students in the classroom, which caused the occurrence of quarrels/refusal when edits were performed. This led Grant (2009) to argue that, "[if] teachers really do want to encourage students to be independent, responsible for their own learning, and to collaborate with one another, then teachers themselves will have a significant role to play in modelling and facilitating these practices" (p.114). Lund and Smordal (2006) have similarly argued that it is the teacher who can facilitate the co-construction of knowledge within the ZPD. Although their study lacked evidence of the online presence of the teacher, they emphasised that teacher intervention in the threaded mode is essential to promote student collaboration.

Following this line of argument, it therefore seems essential to explore teachers' roles in the wiki context, for two main reasons that have emerged from the literature. On the one hand, the current literature suggests mixed findings; some studies suggest that collaboration occurs between students when they interact in the wiki, whilst others find that students' interaction tends to be limited and collaboration rarely happens. These contradictory conclusions raise an important point; although research suggests that students might engage in collaboration with little or no teacher intervention, this is not

always the case. On the other hand, one notable argument for the effectiveness of teacher intervention in the wiki context has not been investigated in-depth. That is, although previous studies mention the role of the teacher, these studies were not devoted primarily to investigating this topic. Furthermore, the data presented in these studies focuses on S-S interaction rather than on how teachers mediate the process, and how they supported the level of collaboration. Even when the teacher's role has been mentioned (Alyousef & Picard, 2011; Arnold et al., 2012; Nami & Marandi, 2013; Woo et al., 2013), this role has been limited to giving feedback (i.e., a process writing perspective).

Another important point that emerges from reviewing the literature is the sole focus on one mode or the other. As has been discussed, although a wiki is a multimodal context that supports writing and discussion, the majority of studies so far have explored student interaction whilst composing the text, either by focusing on the discussion in the threaded mode (by analysing the discussion pages/comments), or by focusing on the writing behaviours in the text mode (by analysing the edits) depending on the focus of their studies. This analysis provides an incomplete picture of the collaborative process that unfolds in the wiki context.

Returning to the definition of collaboration, specifically in a collaborative writing activity (sections 3.3 and 3.4.2), collaboration involves learners' collaborative discourse and actions. Examining one mode and ignoring the other cannot provide the needed information about learners' actions and vice versa. Relevant to this point is Arnold, Ducate, Lomicka, et al.'s (2009) argument; they acknowledge that, "it remains to be investigated in what ways students incorporated each other's suggestions, both from within and outside of the group, into their wiki pages as another measure of collaboration" (p.137). This requires methodological considerations for both the wiki threaded discussion and text modes, especially when students use both levels of interaction to complete the activity. To date, a few studies in the field of language learning have investigated both levels (Li, 2013, 2014; Woo et al., 2013). However, Li's (2014) study focused on S-S interaction without the teacher's presence and she rarely discuss the convergent of both modes. Although teachers were present in Woo et al.'s (2013) study, their main focus was on the S-S peer review process rather than collaboration. They also mentioned teacher roles from a process writing approach (i.e., giving feedback), rather than highlighting how the presence of the teacher helps students

to collaborate. The paucity of studies implies the need for further research to address this gap (discussed in Chapter 4 section 4.7.1).

Taking into consideration these two important gaps namely, the exploration of teachers' roles in the online wiki context, and the methodological need to explore both levels of interaction to fully understand collaboration, the following section discusses the role of the teacher in promoting S-S collaboration. Although the effectiveness of online teacher intervention is not discussed in-depth in the wiki research, section 3.6 discusses the theoretical perspective that supports the role of teacher, followed by evidence from FTF and other online contexts of the effectiveness of online teacher presence in promoting S-S collaboration (sections 3.6.1 and 3.6.2). Based on this chain of evidence, it is argued that teacher online wiki intervention can support S-S wiki collaboration.

3.6 Teacher mediation and promoting collaboration

As discussed previously (section 3.2), the underlying premise of SCT is that knowledge is socially constructed and learning occurs as a result of interacting with knowledgeable others (e.g., parents, teachers or peers). Whilst interacting with others, learners have the opportunity to exhibit their abilities and negotiate their ZPDs with others, whether that is the teacher or a more capable peer. Assistance given by a more knowledgeable person is expected to result in the co-construction of new knowledge that facilitates bridging the gap between the current and potential abilities (Aljaafreh & Lantolf, 1994; Oxford, 1997). Research findings also suggest that interacting with less competent peers can be valuable to language learning (Ohta, 1995). However, from reviewing FTF and wiki studies, it is clear that simply asking students to work in groups does not guarantee their engagement in collaborative interaction (Arnold, Ducate, Lomicka et al., 2009; Bradley et al., 2010; Grant, 2009; Li & Zhu, 2011; Mercer, 1995; Storch, 2002; Webb, 2009).

Given this observation, the role of the teacher is emphasised since from a SCT perspective, teachers can mediate the activity in a way that helps students to engage in collaboration (Rojas-Drummond & Mercer, 2003; Webb, 2009; Yoon & Kim, 2012). Rather than transmitting knowledge to the students, the SCT perspective emphasises the active role of both teachers and students in the process of learning (Kaufman, 2004; Mercer, 1995; Rojas-Drummond & Mercer, 2003). Regarding Vygotsky's ZPD, teachers are expected to be aware of the students' current independent levels of ability and

accordingly play the role of facilitators who provide all sorts of scaffolding within the ZPD to guide students towards constructing knowledge (Nunan, 1992; Yoon & Kim, 2012). Within the ZPD, teacher interventions in the form of scaffolding should be graduated and contingent (Aljaafreh & Lantolf, 1994). That is, they are supposed to gradually release their responsibilities to help students take ownership of their learning process. They are also assumed to offer help only when it is needed and to withdraw as soon as the learner controls the activity. Yoon and Kim (2012) argue that the ZPD does not necessarily impose a teacher dominant role; teachers can promote a collective, reciprocal and supportive classroom context where students of various levels can negotiate their ZPDs together (Boyd, 2012; Yoon & Kim 2012). In this case, the teacher plays a key role as a social mediator to assist students in expanding their ZPD and in helping them to jointly scaffold each other in the learning process (Martin-Beltran, 2012). This occurs when, “the teacher affords[s] a space for students to ask each other, rather than simply providing [answers] for them” (Martin-Beltran, 2012, p. 109).

Since *scaffolding* as a concept has been developed by Wood et al. (1976) outside the classroom context to refer to how mothers assist children in managing physical tasks (e.g., puzzles), Mercer (1995) argues that conceptualising scaffolding in the classroom requires a close examination of how teachers use language to guide the knowledge construction process. He argues that within the ZPD, teachers can mediate students’ cognition by using language as a mediational tool to shape and advance their cognitive abilities. Influenced by SCT, Mercer argues that language is a social mode of thinking, which should be used by teachers/students not only to share ideas, experience and knowledge, but also as a means of thinking and learning together. When talking with others (e.g., parents, teachers or peers), students acquire ways of using language that shapes their thoughts. Mercer also emphasises that in any educational event, people help each other to develop a shared understanding by using language. In the language-learning context, Yoon and Kim (2012) support this view; they argue that a teacher’s questions, repetitions or uses of expansion are examples of using language as a tool to mediate student learning.

Considering the teacher’s role from a SCT perspective, Mercer (1995) discusses *the guided construction of knowledge theory*, whilst Alexander (2008b) highlights the teacher’s role in his *dialogic teaching approach*. Both have asserted the effective role of the teacher whilst interacting with an individual, a whole class or a small group. Mercer

argues that the commonly used IRF sequence, which refers to the teacher's initiation - student's response - teacher's feedback (Sinclair & Coulthard, 1975), limits students' opportunities to use language as a social mode to argue, discuss, justify, explain and therefore co-construct knowledge. Whilst he does not deny the effectiveness of this sequence, he emphasises that teachers should use it as part of a wider repertoire of communicative activities to expand learners' contributions. According to him, teachers can use a variety of techniques (i.e., ways of using language) to elicit knowledge from students, to respond to what learners say and to describe significant aspects of shared experience. These techniques include: direct elicitation (i.e., questions to stimulate recall), cued elicitation (i.e., questions that incorporate a clue to the answer), confirmation, rejection, recapitulation (i.e., summarising what has been said), a teacher's use of *we* statements to highlight the significance of common past experiences as relevant to the present activity, reformulation (i.e., paraphrasing a student's answer to make it more understandable), and elaboration (i.e., expanding on a student's answer).

Alexander's (2008b) *dialogic teaching approach* also emphasises the teacher's role in promoting dialogue in the classroom. The *dialogic teaching approach* is concerned with the power of teacher talk and how understanding is fostered through dialogue. This approach emphasises the role of teacher talk in various classroom organisational contexts (e.g., teacher-whole class, teacher-individual and teacher-small group). Influenced by SCT principles, this approach requires both student engagement and teacher intervention. Talk is the principle means whereby students actively engage and teachers constructively intervene (Alexander, 2008b). Referring to Mercer's (1995) teaching techniques, Alexander (2008b) argues that there are three types of teacher talk, which fall within the realm of traditional teaching, where teachers remain firmly in control. One of these has been discussed previously, which is elicitation or what Alexander termed recitation; the other two are rote teaching (i.e., presenting facts, ideas and routines through constant repetition) and instruction (i.e., telling students what to do by explaining procedures or/and imparting information).

Whilst the previously discussed types of teacher talk are commonly used in every classroom, Alexander (2008b) argues that dialogic teaching occurs only when other types of teacher talk such as *discussion* and *dialogue* take place. Discussion occurs between the teacher and the students, the teacher and groups or even between students. It involves the exchange of ideas with a view to sharing information and solving problems.

Dialogue can also occur between the teacher and the class, the teacher and groups, the teacher and an individual, or between students. It refers to using language to achieve, “common understanding through structured, cumulative questioning and discussion which guide and prompt, reduce choices, minimise risk and error, and expedite ‘handover’ of concepts and principles” (Alexander, 2008b, p.30). According to Alexander, dialogic teachers can use a mixture of traditional teaching techniques and dialogic techniques to ensure effective teaching practices. In Alexander’s dialogic teaching approach, the teacher has to allow learners to take an active role in the teaching and learning process. The teacher provides opportunities and encourages students to question, comment on and express their ideas. Promoting and engaging in a discussion with students to explore and support the development of their understanding are also important. Encouraging students to talk and helping them to recognise that talk is a valuable tool for the joint construction of knowledge is reflected in *dialogic teaching*. According to Alexander, five indicators are important when discussing dialogic teaching:

- Collective: teachers and children address learning tasks together whether in a group or as a class.
- Reciprocal: teachers and children listen to each other, share ideas and consider alternative viewpoints.
- Supportive: children articulate their ideas freely without the fear of embarrassment over ‘wrong’ answers and they help each other to reach common knowledge.
- Cumulative: teachers and children build on their own and each other’s ideas and chain them into coherent lines of thinking and enquiry.
- Purposeful: the teacher plans and facilitates dialogic teaching with particular educational goals in view.

(Alexander, 2008b, p. 28)

Thus, Mercer’s (1995) and Alexander’s (2008b) theoretical ideas support the important role of the teachers in developing students’ cognitive abilities and dialogic interaction (i.e., collaboration). Mercer, however, points out an important issue when examining classroom interaction, which is the nature of formal education in a specific sociocultural context. He argues that the nature of classroom talk reflects a historical and a jointly established set of rules and conventions that control the nature of teacher-student

interaction, and vice versa. In some sociocultural contexts, these rules emphasise the teacher's superior knowledge and students' relatively powerless position. Therefore, according to him:

To understand how both teachers and learners contribute to teaching and learning we need to take account of the social and cultural relationship involved. Education never takes place in a social and cultural vacuum. Schools are places with their own special kinds of knowledge and their own ways of using language, and their own power relationship; but they are part of a wider society. (Mercer, 1995, p. 47)

Thus, the teacher's role in developing students' understanding and learning is emphasised in various organisational contexts (i.e., whole class or group work). The following section addresses empirical research into the ways/behaviours that teachers adopt to promote S-S collaboration in two contexts: FTF and online contexts. In the FTF context, empirical research has focused on the role of the teacher in teacher-fronted classrooms (i.e., teacher-whole class interaction) and in small group interaction. It is the latter that is more relevant to the current study. Therefore, only research findings relating to teacher mediation in S-S interaction in small group collaborative activities are presented. It should be noted that the review includes observational studies where students worked in groups whilst performing a pen-paper and a computer-based activity in a FTF classroom. Since this topic has only been recently discussed in the FTF language-learning contexts (see Yoon & Kim, 2012), additional evidence is presented from other educational contexts, such as mathematics and science classrooms.

Presenting these research findings has two aims: (1) to understand which teacher behaviours are empirically found to promote S-S collaboration, and (2) to back up the focus of the present study on teacher roles in promoting S-S collaboration in wiki-mediated collaborative writing activities.

3.6.1 Insights from FTF contexts

Research findings suggest that teachers play an essential role in promoting S-S collaboration before and during interacting in an activity. Some of these studies were conducted in language-learning classrooms with primary and secondary school students (Boyd, 2012; Martin-Beltran, 2012; Smiley & Anton, 2012), with adults in a speaking and listening class at college level (Kim, 2012), and first grade students in a two-way

immersion program (De Jong, 2012). Other studies were conducted in other classrooms such as mathematics and science (Chiu, 2004; Chiu & Chuang, 2007; Mercer, 1995, 1996, 2003, 2004; Mercer & Fisher, 1992; Rojas-Drummond & Mercer, 2003; Rojas-Drummond et al., 2001; Warwick, Mercer, Kershner, & Staarman, 2010; Webb, 2009). A synthesis of the findings suggests that teachers promote S-S collaboration by: (1) setting ground rules, (2) modelling, (3) intervening in peer interaction, and (4) creating a classroom community.

If teachers teach students how to collaborate, students will have opportunities to collaborate with each other and hence learn together. This assumption is supported by empirical research, which reports that S-S collaboration is fostered when the teacher explicitly outlines the expected and desirable behaviours (i.e., ground rules). For example, studies by Mercer (1995, 1996, 2003) and Mercer and Fisher (1992) emphasise that simply assigning students to groups does not ensure productive interaction. Students may engage in a '*disputational talk*' or '*cumulative talk*'. The former is characterised by insistence, ignoring each other's ideas, disagreement with and disengagement from each other's contributions, whereas the latter represents a low level of mutual talk during which students express agreement with everything without reasoning or justification. As a way of helping students to engage in collaboration and more specifically in *exploratory talk*, (i.e., high mutuality and reciprocal interaction with instances of reasoning, justification and building new ideas), some teacher ground rules were proposed in Mercer's (1995, 1996) studies. The teacher asked students to use the language in a collaborative way to share ideas, to listen to others, and to take turns to talk, accept alternatives, build on and challenge each other's contributions and to provide reasons. Observing S-S behaviours after the intervention of providing these ground rules indicated that students engaged in *exploratory talk* whilst conducting computer based FTF activities. This finding corroborates those of other studies. For example, Warwick et al. (2010) found that by sharing ground rules with students, teachers were remotely mediating S-S interaction, leading to collaboration. A qualitative analysis showed that students appropriated the ground rules in their group work, which helped them to engage in collaborative behaviours.

Modelling can also promote collaboration. This can be achieved by showing students how language can be used as a tool for thinking (Mercer, 1995). For example, the teacher may model *linguaging* (Martin-Beltran, 2012; Smiley & Anton, 2012),

collaborative behaviours (De Jong, 2012), or the task students are about to perform (Smiley & Anton, 2012). In Martin-Beltran's (2012) study, the teachers modelled co-writing and revision processes and showed the students how mistakes can be opportunities for learning. Teachers engaged in *linguaging* themselves by reflecting on their own or another's language use in front of the class (e.g., they modelled curiosity about language). In Kim's (2012) study, the teacher used WH questions to promote S-S discussion, whereas in Boyd's (2012) study, the teacher modelled the use of contingent questions. In De Jong's (2012) study, teachers modelled collaboration by engaging with one student to show the rest what a collaborative partner looks like. They modelled eye contact, how to listen carefully, how to take turns to talk, how to exchange ideas, ask questions and to provide answers.

Qualitative analysis of the classroom interaction in these studies suggests that these teacher behaviours assist S-S collaboration. For example, in Martin-Beltran's (2012) and Smiley and Anton's (2012) studies, students engaged in *linguaging* by discussing language use with the teacher and their peers (i.e., *collaborative dialogue*). Although it was not made explicit in Kim's (2012) study that the teacher modelled WH/open-ended questions, but rather used it as a strategy to promote S-S discussion, the transcripts of student talk showed their appropriation of WH questions and frequent use of the *because* clause. Boyd (2012) claims that in her study the use of contingent questions was appropriated and used by students during group discussions. This claim is supported by examples from S-S talk, which involved the use of *why* questions, which helped students to think and to engage in *exploratory talk*.

So far, setting ground rules and modelling have been suggested as effective strategies to promote collaboration. Teacher intervention whilst students are working together in small groups is equally important. For example, in Martin-Beltran's (2012) study, although the teachers explicitly asked students to collaborate, she reported some instances that showed that without teacher intervention, it was unlikely that students would engage in *collaborative dialogue*. Empirical evidence supports this; it has been found that teachers use different strategies to promote S-S collaboration when intervening in student interaction (Chiu, 2004; De Jong, 2012; Handsfield, 2012; Martin-Beltran, 2012; Pifarre & Li, 2012; Rojas-Drummond et al., 2001; Smiley & Anton, 2012; Wen, Chen, Looi, & Xie, 2014). For example, in language-learning classrooms, Martin-Beltran (2012), Kim (2012) and Smiley and Anton (2012) reported that teachers

intervened in peer interaction by asking students questions about language. Their questions helped students to verbalise their partial knowledge, elaborate on other ideas and to collaboratively combine their knowledge to cope with the linguistic gaps encountered (i.e., to engage in *collaborative dialogue*). Although students directed questions to the teachers, they afforded space for collaboration by encouraging students to ask each other rather than simply providing the answer.

Similar observations have been reported in other studies (Chiu, 2004; Ding, Li, Piccolo, & Kulm, 2007; Mercer, 2003; Mercer & Fisher, 1992), which argue that teachers assist students in bridging the gaps in their ZPDs by providing appropriate *scaffolding*. For example, in Mercer's (2003) study, the teacher intervened to remind students about the ground rules and to ask them to clarify their ideas. In Ding et al. (2007), when the teacher used *scaffolded questions* (i.e., questions that help students to find the answer), students exchanged their ideas with others to find an answer. It is only when the teacher felt that students could not find the answer collectively, she intervened to provide it.

Likewise, teachers in Smiley and Anton's (2012) study encouraged student participation when they felt that the answer was within the learners' abilities. The teachers avoided giving answers but attempted to simplify, use pauses and gaze at learners and intervene with short turns to encourage the students to share their answers with the class. De Jong (2012) reported similar findings, as he reported that the teacher used questioning to prompt multiple responses, used follow-up questions asking students to explain as way of extending student discussion, and suggested additional topics for discussion. Furthermore, in Kim's (2012) study, when students made a mistake, teachers avoided giving corrective feedback on incorrect utterances, and in Handsfield's (2012) study, the teacher opted to intervene by positioning herself as a participant or co-learner to prompt S-S discussion, rather than taking part by providing a direct answer. This helped students to rely on each other to find solutions rather than depending on the teacher.

These teacher behaviours seem to align with Rojas-Drummond et al.'s (2001) description of *interactive teachers* (i.e., teachers who encourage dialogue between students). These researchers observed that *interactive teachers* use strategies to help students to collaborate, such as using *why* and open questions, using other learners' responses to redirect interaction with subsequent students, explicitly linking prior knowledge to the current activity by using *we* statements, promoting active participation,

using student mistakes to reconstruct knowledge, and using other students to support the learning process.

In Chiu's (2004) study, some students initiated teacher intervention by seeking help. Rather than providing an answer, the teacher helped students by stimulating their discussion and asking them to reconsider the question together. Evidence from the data showed that when the teacher intervened, students began to collaborate, taking turns to solve the problem. In some cases, the teacher used a combination of commands (i.e., telling students precisely what to do) and questions, which helped in directing students' understanding of the problem. The teacher's evaluation, content of the help given, and commands affected student behaviour. The students were found to stay more on-task after teacher intervention than before, and to discuss and develop new ideas, and explain them to one another when the teacher intervened. However, the findings showed that these behaviours eventually faded. This demonstrates the importance of continuing to monitor student progress. According to Chiu, teacher evaluation of group work (i.e., diagnosing their needs) was considered an effective strategy. It helped the teacher to adapt the level of assistance to a specific group situation, and to work with students on their ideas, instead of telling them what to do. It also showed respect for the students' ideas as worthy of consideration. Similarly, Wen et al. (2014) found that clearly defining the learning objectives of the task helped to improve collaboration between students, and the teacher's on-going feedback played an important role in maintaining students' enthusiasm.

Fostering a sense of classroom community is also suggested to have an important role in promoting S-S collaboration. Studies by Smiley and Anton (2012), Chiu (2004) and De Jong (2012) highlight the importance of social interaction between students and teachers. Smiley and Anton argue that this helps to create a non-threatening classroom context where students can share ideas and express their opinions without fear. In Smiley and Anton's (2012) study, the teacher established a friendly classroom context by conversing about students' interests, and by using humour to decrease students' frustration and to give them the confidence to talk to each other. In De Jong's (2012) study, the teacher sat on the floor, joining the students' activity, to minimise the power differential in the relationship between the teacher and students. In Chiu's (2004) study, in situations when the group did not begin their work, the teacher commanded them to start the activity. When students worked correctly and did not seem to need help, the

teacher motivated them by praising and encouraging their work. Here, she was intervening for social more than instructive purposes. In the Mercer and Fisher (1992) and Mercer (1995) studies, the teacher defined the learning experience as one that was shared by her and the children, by using *we* statements.

Some studies have found that some teachers' behaviours can hinder S-S collaboration. For example, in Ding et al.'s (2007) study, some teachers never checked whether groups had already discussed the questions raised but responded immediately to students seeking help. Teachers rarely encouraged students to share ideas, which ultimately affected the way the students collaborated. In Rojas-Drummond et al.'s (2001) research, whilst they identified the *interactive teacher* who encouraged collaboration, they also found the *official/conventional* teachers who hindered S-S collaboration. The latter discouraged students from talking to each other and directed them to focus on their individual work. They gave direct instructions for students to follow, and asked closed questions to the whole class. When a student answered incorrectly, the *official teachers* rarely encouraged others to discuss this, and simply provided the correct answer. They rarely modelled or encouraged student collaboration.

In studying FTF student interaction during a wiki-mediated classroom activity, Pifarre and Li (2012) observed that the teacher began the wiki activity with teacher-directed dialogue, whereby she gave directions to the students on how to work in the wiki. Her direction was led by her pedagogical goal. That is, the teacher used language mainly to provide direct instructions about task resolution. Rather than instructing students on how to collaborate or interact, the teacher used *authoritative talk* to focus on the task procedures. Such *authoritative talk* (85.5%) obstructed students' dialogical space in the wiki, since the teacher rejected students' ideas and directed them according to her pedagogical goal. In some extracts of the interaction, the teacher used language not to encourage students to share ideas, but to obstruct collaboration by drawing their attention to what she would like students to do/write. Pifarre and Li (2012) argue that although this authoritative talk, "could to some extent keep children to stay on task, and guide them through the activity, [...] in this particular task, the teacher's control and help might cause the opposite effect-restricting children's negotiation" (p.111). The teacher's pre-defined pedagogical goal was to support children in completing the task rather than to encourage collaboration. In some cases, the teacher was able to create a dialogic space (14.5%) to help the students to be interdependent with each other's ideas

by seeking explicit links between an individual's and another's ideas written in the wiki, relating individual ideas to ideas agreed upon by the group, or by contributing with novel ideas. Here, the teacher tried to aid the emergence of a *collective ZPD*. In general, the classroom discourse exhibited traditional classroom talk (i.e., IRF), explicit guidance, and *authoritative talk*. The discourse patterns suggest that the teacher talk did not consider students' thinking/ideas, but rather controlled the direction of the task and dialogue.

3.6.2 Insights from online contexts

A number of CALL studies have highlighted the role of teacher in promoting S-S collaboration in the online context (Berge, 1995; Comas-Quinn, De los Arcos, & Mardomingo, 2012; Ernest et al., 2012; Garrison, Anderson, & Archer, 2000; Hauck & Hampel, 2005; Lamy & Goodfellow, 1999; Mangenot & Nissen, 2006; Maor, 2003; Murphy, 2015; Osman & Herring, 2007; Pawan et al., 2003; Shield, Hauck, & Hower, 2001; Tait, 2000; Weasenforth, Biesenbach, & Meloni, 2002; Zhang, Gao, Ring, & Zhang, 2007). Despite their general positive findings, some of these studies argue that teachers need to develop certain skills to be able to promote collaboration. The skills that teachers need to develop have been addressed by other studies (Compton, 2009; Hampel, 2009; Hampel & Stickler, 2005; Levy, Wang, & Chen, 2009; Stickler & Hampel, 2015). Despite the importance of identifying these skills, the discussion in this section is limited to studies that focus on the way teachers mediate students' online interactions, due to this topic's relevance to this study. A synthesis of the research findings suggests that teachers can promote online S-S collaboration by: (1) cognitive support/intervention, (2) adopting a combination of cognitive and social tutoring styles, and (3) minimising the number of teacher posts.

The first category refers to a teacher's pedagogical efforts to intervene in student online interaction to provide feedback, ask questions to stimulate S-S collaboration, and to synthesize students' comments. For example, Maor's (2003) study provides evidence that during the first week of an online activity, students posted monologue posts (i.e., students posted their work without inviting others to reply). However, when the teacher intervened and explicitly asked students to engage with one another, they began to refer to each other's contributions, criticise and engage with each other's posts. Weasenforth et al. (2002) reported similar findings in their three semester long study. They realised

that when teachers adopted the role of assessor or observer in the first semester, students' posts remained at a lower level of thinking. Evidence of collaboration was observed in the second and third semesters when teachers modelled the desired discourse, suggested ideas, and used prompts and questions to stimulate S-S discussion.

Likewise, Pawan et al. (2003) found that without explicit teacher guidance, students exchanged monologue posts. One of their findings was that the way teachers intervened affected the quality of S-S interaction. This claim was based on evidence from three graduate-level teacher education courses. In two of these, they observed that the students' interactions were limited to the triggering phase (i.e., beginning a dialogue about particular issues) and/or the exploration phase (i.e., moving from private reflection to exchanging information with others). In one of these courses, the teacher adopted a traditional and an authoritative role and rarely encouraged S-S collaboration, whereas in the second course, the teacher and students interacted in a *commenting* rather than an *inquiry-based* mode (i.e., students' responses were mainly affirmations or acknowledgments rather than questioning). In the third class, however, they found evidence of collaboration, since students engaged in the integration phase (i.e., students began to construct meaning or solutions to an issue using each other's ideas). Closer analysis of the teachers' behaviours showed that in the third class, the teacher intervened in a less authoritative way and adopted the role of facilitator in the students' discussions. This led the researchers to argue that a *teaching presence* in the form of providing probes, questioning, and modelling critical thinking is more important than the mere presence of a teacher.

Adopting a cognitive and social tutoring style has also been cited as important, not only to build a community, but also to enhance students' fluency and accuracy. These tutoring styles were first discussed by Lamy and Goodfellow (1999) to refer to teachers who encourage subject-knowledge discussion (cognitive) as opposed to socialisation (social). Studies by Lamy and Goodfellow (1999), Shield et al. (2001), and Hauck and Hampel (2005) found that these types of tutor intervention affect the way students interact with each other. For example, Lamy and Goodfellow's data showed that students in the cognitive tutor course engaged in more reflective conversation to talk about English and French, with more focused talk on vocabulary and grammar (i.e., *collaborative dialogue*). The cognitive tutor posted questions about language, created a work-orientated online context and modelled the required discussion. In contrast, in the

social tutor's course, students posted social communication posts that involved student talk about other issues unrelated to the target language. Lamy and Goodfellow emphasised the need to incorporate both styles, however such integration was not achieved by the teachers involved in their study. Shield et al. (2001) reiterate this argument since they found that the cognitive style tutor promoted accuracy whereas the social style tutor promoted fluency. Hauck and Hampel (2005) emphasised that teachers' in-task correction should be minimised, as it negatively affects students' fluency.

Mangenot and Nissen (2006) identify another type of teachers' support/involvement at the organisational level, where teachers remind students about the schedule of the course, asking them to talk about the task rather than other unrelated topics, and providing feedback on their work. They reported that in their study, teacher focused mainly on organisational issues rather than socio-cognitive ones. Although they did not claim a direct link between the way teachers intervened and the way students interacted, their data showed that students rarely collaborated at the socio-cognitive level, and that their online collaboration focused on organisational and socio-affective collaboration. That is, students were able to engage in a discussion about organising their work and were immediately accepting of other's proposals, but were not eager to encounter new challenges or to reflect on their own and/or each other's language use. Furthermore, students directed their language-related questions to their teachers rather than to their peers. Although the course was designed primarily to promote collaboration, the authors concluded that students did not engage in highly collaborative behaviour at the socio-cognitive level. This led them to argue that collaboration does not occur simply through designing collaborative course principles, but that it may occur due to effective teacher interventions based on certain developed pedagogical skills.

Minimising teacher posts and allowing more opportunities for S-S interaction is another strategy that has been suggested to promote S-S collaboration. The Mazzolini and Maddison (2003, 2007) studies distinguish between two types of online teacher presence, namely: *sage on the stage* (i.e., the teacher leads the discussion and becomes the most frequent contributor), and *guide on the side* (i.e., the teacher encourages student discussion without dominating the discussion, and intervening when there is a misunderstanding or a break-down in communication). Mazzolini and Maddison's analysis suggests that teachers who are active in initiating discussion threads do not appear to stimulate S-S interaction, and that more teacher posts resulted in fewer and

shorter student discussions. This suggests that teachers should not act as a *sage on the stage*, but should rather adopt a more social-constructivist role by acting as a *guide on the side*. Although their study provides an insight into the relationship between the frequency of teacher interventions and student participation, their analysis focused on the quantity of the posts rather than the quality. This limited the understanding of student behaviours.

In another study, Osman and Herring (2007) reported that at the beginning of the online interaction, teacher posts predominantly contained direct instructions and this was seen as an indication of minimised opportunity for S-S interaction. Generally speaking, high collaboration between students was not evident in their study. This finding was attributed to cultural issues, and the power relationship between teachers and students. That is, Azerbaijani students come from a culture where the teacher is regarded as the fountain of knowledge. This may explain why students contributed less than the teacher. Students regard the teacher as an expert, and they rarely doubt or challenge a teacher's opinions, and may be reluctant to share their ideas with others. This claim, however, was not based on evidence. The study mainly presented content analysis of the online posts and focused more on the quantity of posts. No evidence from the student interviews or diaries was given to support the claim. Despite this limitation, the study provided an insight into the effect of cultural background on S-S online interaction whilst the teacher is also present.

Although the previous findings are based mainly on observing and analysing online interaction, some of these studies provide evidence from student interviews and surveys that highlights the effectiveness of online teacher intervention. For example, in the survey data of the Weasenforth et al. (2002) study, students declared that the presence of the teacher pushed them to include more reflective commentary. Similarly, in Zhang et al.'s (2007) study, students stated that because the teacher observed them, they took more responsibility for the accuracy of their writing. Furthermore, students in Shield et al.'s (2001) research held the underlying belief that the teacher should intervene at the cognitive rather than the social level. They preferred to get instant feedback from the teacher, who they claimed should provide subject knowledge. Students in Zhang et al.'s (2007) research expressed positive feelings about their posts being appreciated by the teacher, and stated that receiving teacher feedback made them want to post more.

3.7 Summary

This chapter presents SCT, which assumes that language learning occurs in social interaction with others. It highlights the importance of mediation in regulating an individual's cognitive abilities, as well as the sociocultural context where interaction occurs. It also suggests that collaborative writing activities promote *collaborative dialogue* and behaviour amongst language learners.

Given the concept of mediation, the chapter also highlights the effect of the medium of interaction (i.e., online) on shaping and promoting S-S collaboration. It proposes the wiki as a medium, which can mediate student interaction in collaborative writing activities. Evidence suggests that wikis promote S-S collaboration in the wiki threaded discussion and text modes, and provide ample opportunities for language learners to engage in collaboration. Following this evidence, the chapter discusses two main arguments: (1) the necessity of exploring teachers' roles due to some inconclusive findings, and (2) the need for an analytical approach that permits the analysis of discussion and writing behaviours, to fully comprehend collaboration in a wiki. To support the first argument, evidence has been presented for the effectiveness of teacher roles in FTF and other online contexts. Evidence presented suggested that teachers play an effective role in promoting and shaping the way students interact; their behaviours can lead to S-S collaboration whether in FTF or other online contexts. Despite the importance of teachers' interventional behaviours, the wiki literature lacks studies focusing directly on the effects of teacher interventions in S-S online collaboration. Given the research evidence from FTF and online contexts, it is important to understand how teachers could support S-S collaboration in wiki-mediated collaborative writing activities. The aim of the present thesis therefore was to understand how EFL teachers could support S-S online wiki collaboration during a wiki-based collaborative writing activity. This was achieved by: (1) exploring the interactional process between students whilst they were engaging in a wiki-based collaborative writing activity, (2) exploring how teachers intervene in students' online wiki interaction, and based on this exploration, (3) identifying teacher interventional behaviours that seem to promote/hinder student collaboration. To achieve these objectives, the following research questions were proposed:

RQ1. What collaborative/non-collaborative behaviours do Kuwaiti EFL female students from two government secondary schools engage in whilst writing their texts using the wiki threaded discussion and editing modes?

RQ2. How do Kuwaiti secondary school EFL teachers intervene in students' online wiki activity?

RQ3. Do teachers' online wiki interventions promote or hinder students' collaboration? If so, how?

The following chapter addresses the research design that was adopted to answer these research questions. It also addresses the second gap in the literature by presenting an analytical approach, based on principles of computer mediated discourse analysis (CMDA), to analyse the process of interaction at the wiki threaded discussion and text modes.

Chapter 4 Methodology

4.1 Overview

This chapter presents the research design developed to answer the previous research questions to achieve the broader research aim. To investigate how students and teachers interact in wiki-based collaborative writing activities, an interpretative perspective was adopted as a paradigmatic stance (i.e., way of thinking about the real world), since it offered an opportunity to develop an in-depth perspective on the social reality (section 4.2). The nature of the research questions along with this paradigmatic stance influenced the selection of case study as a research approach (section. 4.3). Multiple methods were used to collect the data; these involved observing online interaction and conducting interviews (section 4.3.1). Other contextual information was also collected using background interviews and questionnaires to assist in the process of interpretation.

The participants and the boundaries of the case (i.e., the wiki platform and activity) are discussed in sections 4.3.2 and 4.3.3. Discussion about the data collection methods, the choices made, their design, and how they were used in the study, is highlighted in section 4.4. The main phases of the research are discussed in the section on procedures (section 4.5). To analyse the data, the principles of computer mediated discourse analysis (CMDA) were adopted (section 4.6). Several frameworks were evaluated and where appropriate, specific frameworks were used to construct the current study's analytical framework. After discussing how the data were analysed, the chapter then highlights issues of trustworthiness to ensure the rigor of the present qualitative enquiry, and acknowledges the researcher's bias and stance (sections 4.7 and 4.8). The chapter concludes by explaining the ethical considerations (section 4.9) and the difficulties encountered (section 4.10).

4.2 Interpretivism

Due to the nature of the current study that focused on understanding a social phenomenon, a qualitative interpretative standpoint was adopted. This assumes multiple world realities, which are subjective, changeable and socially constructed (Denzin & Lincoln, 2008; Mertens, 2005; Wellington & Szczerbinski, 2007). The choice of this paradigmatic stance was believed to be appropriate for the current study, since it allowed

for understanding the observed behaviours by socially engaging with the research participants (Cohen, Manion, & Morrison, 2011; Holloway & Wheeler, 2002; Walsham, 2006). This means bringing together the researcher's perspectives (etic), and also the participants' own perspectives (emic), meanings and interpretations in the process of understanding the multiple realities (Creswell, 2007; Friedman, 2012; Mertens, 2005). Such an approach was crucial in this study, since understanding the teachers' and the students' online behaviours necessitated elaboration and clarification. This was achieved not only by observing the social reality (i.e., their online behaviours), but also by engaging with the participants in the process of interpretation and understanding the observed realities (i.e., interviewing them).

Since this paradigm acknowledges that there is no single fixed reality, it allows the researcher to immerse her/himself in the social world of the participants, exploring the phenomenon of the wiki interaction in-depth, to achieve clearer understanding of it in its real life complexities (Holloway & Wheeler, 2002; Merriam, 1988). This aligns with the current research aim, which did not aim to predict or control specific variables about the phenomenon, but rather to explore the interaction as it unfolded in real life situations (Creswell, 2007; Merriam, 1988). In the process of understanding the phenomenon, an interpretative stance also acknowledges the importance of the historical and cultural context in shaping participants' views and behaviours (Creswell, 2007; Friedman, 2012; Holloway & Wheeler, 2002). This was essential since as discussed in Chapter 2, to understand the effectiveness of the use of a particular technology, there is a need to understand the sociocultural context in which the technology has been adopted (Chambers & Bax, 2006; Egbert, 2005; Kern, 2006; Müller-Hartmann, 2012; Warschauer, 1998, 2005). Sociocultural context here not only implies the physical environment, but rather it entails the participants' ideologies, values and histories (Holloway & Wheeler, 2002). Adopting another paradigm could have led to what Huh and Hu (2005) and Gutierrez (2006) termed a *techno-centric* perspective (i.e., focusing on technology only), whilst ignoring the effect of agency (i.e., participants with their own goals, attitudes and histories).

4.3 Case study

Taking an interpretive standpoint as the research paradigm, a qualitative exploratory case study design was employed. This is defined as an in-depth exploration of “a

particular contemporary phenomenon within its real life context using multiple sources of evidence” (Robson, 1993, p. 146). Yin (2009) further elaborates that in a case study, “the boundaries between phenomenon and context are not clearly evident” (p. 18). The phenomenon can be a person, an organisation, an event or groups of people doing something; in studying the phenomenon, the wider relevant contextual factors are considered (Baxter & Jack, 2008; Yin, 2009). Creswell (2007) further clarifies that a case study is, “an exploration of a bounded system” (p. 61); this boundary can be either physical such as schools, or temporal such as a web activity (Müller-Hartmann, 2012; Nunan & Bailey, 2009).

In this study, the contemporary phenomenon was the process of online wiki interaction between EFL teachers and students in a temporal boundary. This means that the study as a whole was bounded by parameters of study time (i.e., thirteen weeks), place (i.e., PBwiki platform), and activity (i.e., a poster about Kuwait), and involved specific EFL participants from Kuwaiti government secondary schools (Miles & Huberman, 1994). The phenomenon was not studied in isolation, but rather broader contextual features were considered since, “one cannot understand the phenomenon without attending to the context in which it occurs” (Friedman, 2012, p.182). These contextual features were related to teachers’ and students’ characteristics (e.g., their language learning experience and technological background) and their classroom behaviours (e.g., FTF collaborative writing experiences and behaviours). Contextual issues are important, since from a CALL perspective, teacher cognition of teaching and learning can shape the way a teacher uses technology (Attia, 2011; Warschauer 2003). There is also an argument that suggests the students’ characteristics, their competence in using technology, and their language-learning backgrounds can influence the way they interact with a specific technology (Levy & Stockwell, 2006). As mentioned previously in the wiki literature (section 3.5.3), evidence suggests that sociocultural factors play an important role in shaping how students collaborate when interacting in a wiki activity, therefore, adopting a case study design was beneficial in gaining an understanding of any contextual factors that might affect collaboration.

The selection of a case study design, from amongst other research designs, was based on a number of reasons. Firstly, the nature of the research questions suggested the suitability of the case study design. Yin (2009) argues that, *how* and *why questions* are best answered by using a case study design. The present study was mainly interested in

answering *how* questions to understand behaviours (Creswell, 2009; Merriam, 1988). Secondly, a case study design is useful to, “examine contemporary events when the relevant behaviour cannot be manipulated” (Yin, 2009, p.11). In studying online interaction in web-based collaborative activities (including wikis), there are complex interrelated issues that cannot be controlled or manipulated (Müller-Hartmann, 2012). These include, but are not limited to, the different agents (i.e., teachers and students), the various roles they play, the computer as a mediational tool, and the effect of the broader sociocultural context on how agents interact. Thirdly, since the study was exploratory, a case study design helped to provide an in-depth analysis, interpretation and description of the phenomenon in a specific context using a variety of data sources (Casanave, 2010; Duff, 2008, 2012; Flyvbjerg, 2006; Merriam, 1988; Yin, 2009). This according to Baxter and Jack (2008), “ensures that the issue is not explored through one lens, but rather a variety of lenses which allows for multiple facets of the phenomenon to be revealed and understood” (p. 544).

A collective/multiple case studies design was selected from amongst other types of case studies (Stake, 1994; Yin, 2009). Yin (2009) states that a multiple case studies design refers to a single study that comprises more than one single case. In this study, the multiple case studies design refers to three EFL teachers; in each teacher’s class there were embedded cases. From each teacher’s class, one embedded case was selected which represented the unit of analysis (i.e., an online wiki group). This involved the teacher and a group of students interacting online to complete their wiki activity (discussed further in section 4.4.2). The decision to employ multiple cases rather than one case helped to access a richer set of behaviours, as well as to highlight the variations and similarities exhibited across different teachers and students (Darke, Shanks, & Broadbent, 1998; Duff, 2012). In addition, having more than one case can help to achieve analytical generalisation (Robson, 2002; Yin, 2009). That is, if one case generates a theory about what is going on, having two other cases helps to confirm or disconfirm it.

4.3.1 A multiple methods approach

To achieve a more comprehensive picture, a qualitative multiple methods approach was adopted (Patton, 2002; Robson, 2002). That is, to investigate the research questions, more than one qualitative method was used. To explore the teachers’ and the students’

online wiki behaviours, observational/tracking data were collected along with interview data. This is called triangulation of the data, which refers to collecting corroborative evidence from different data sources within the qualitative method (Denzin,1978; Patton, 2002). Using multiple methods afforded multidimensional insights into the topic being investigated (Barbour,2008). Each method explored a different aspect of the phenomenon, and hence strengthened the understanding of it. Since each method has its own limitations, using a multiple methods approach allowed for matching, “the strength of one to the weakness of another and vice versa” (Robson, 1993, p.204). This is essential when studying online behaviours, as Herring (2004a) emphasises that the online text provides direct evidence of behaviour, but this might only indirectly reveal what people know, think or feel. Therefore, if a complete understanding of online behaviours is sought, evidence should be acquired using other methods such as interviews or questionnaires. Ware and Rivas (2012), likewise argue that, “bringing in additional layers of information through interviews and surveys allows researchers to interpret the interactions captured in the transcripts” (p.113). Pawan et al. (2003) similarly recommend using student interviews as an additional source of data to illuminate things that affect the degree of student online collaboration. In this study, by supplementing online observation with interviews, it was hoped to, “bring together an etic (i.e., researcher’s perspective) with multiple emic perspectives, thus creating a more complete and multi-layered description” (Friedman, 2012, p.186).

Another issue supported by data triangulation is validity. Using multiple sources of data can help to strengthen interpretations and conclusions (Mertens, 2005). Interpretations of online behaviours can be strengthened, by confirming their validity with the participants’ own experiences and views of events, and thereby illuminating silent features to provide fuller understanding (Ware & Rivas, 2012).

4.3.2 Participants

The participants in the current study were selected using convenience sampling. This means selecting research participants who are willing and available to be studied (Creswell, 2005). This sampling strategy was a practical one as it saved time and resulted in willing participants (Dörnyei, 2007). Willingness is crucial to get *telling cases* who can provide richer data and guarantee participants’ involvement throughout the research process, especially considering that participants were asked to complete the

wiki activity outside of school hours. The Centre of Research and Educational Curriculum (part of the Kuwaiti Ministry of Education) facilitated the sampling process, in line with its remit to support the process of research in Kuwaiti government schools.

Three female EFL teachers from two government secondary schools in Kuwait participated in the study. They had different levels of teaching experience. All of them had experience using technology in their classrooms and had different perspectives on its use (a thick description is presented in Chapter 5). Limiting the number to three cases was determined by contextual constraints⁷. Furthermore, from a research perspective, having too many cases may result in a less intensive analysis of each case, and some advantage of the case study such as vividness and the depth of the case may be lost (Casanave, 2010; Duff, 2012; Flyvbjerg, 2006).

The teachers' students were in grade twelve in the secondary school stage. Their ages ranged between 17 and 18 years old. A total of twenty-two students participated from the first teacher's class, whilst thirteen and eighteen students participated from the second and the third teachers' classes respectively. As mentioned in Chapter 2, all the students were learning English and ICT as compulsory subjects. Arabic was the first language of all the participants and English was a FL. In all three classes, students had participated in group work, and all had experienced collaborative writing in their EFL classrooms (in-depth information is presented in Chapter 5).

4.3.3 Boundaries of the case

As discussed previously (section 4.3), the contemporary phenomenon studied was the process of the online wiki interactions between the EFL teachers and the students in a temporal boundary (i.e., a wiki-based activity). The boundaries of the case such as the wiki platform that students interacted in, and the activity they worked on, are discussed in the following sections.

⁷ Due to the teaching curriculum loads of grade twelve teachers, the Centre was only able to provide access to two schools where three teachers volunteered to participate.

4.3.3.1 The Wiki platform

Kuwaiti secondary schools have not yet been equipped with private course management systems such as Blackboard or WebCT, or open free source course management systems such as Moodle. Therefore, it was necessary to select a suitable wiki platform for the current study, prioritising the importance of a highly secure, free and easily accessible platform. A comparative⁸ analysis of the different technical criteria of some platforms commonly used in the literature revealed their strengths and weaknesses, and also provided an indication of those considered appropriate for the current study (see Appendix B).

PBWiki was chosen for several reasons. Firstly, compared with other platforms, it is easy to use and its technical design offers a comment function (i.e., discussion) located at the bottom of the wiki writing page (see Screenshot 1). From a pedagogical perspective, this makes reading and commenting on a particular text easier. Students can write the wiki text whilst simultaneously engaging in an asynchronous discussion about the text. From a methodological perspective, edits, comments, and changes that occur on the wiki are almost immediately communicated to administrators via email notifications. This helps the researcher to become immersed in the process of tracking and observing the online interaction (see section 4.4.2). PBwiki also allows the administrator to reset passwords for users who have lost them. This was particularly useful here, because it was expected that the teachers and the students might lose or forget their login details, and the functionality of resetting passwords and user names could help to overcome this problem. Finally, a crucial benefit was that the workspace security in PBwiki is very high, and only the wiki administrator has the right to permit edits.

⁸ These technical comparisons were facilitated by <http://www.wikimatrix.org/>

Screenshot 1 PBwiki platform

VIEW EDIT

☆ Group 3

last edited by [redacted] aqo Page history

Places to visit in Kuwait

Text mode

Kuwait is a rich country which has many modern and historical places to visit. As a tourist, you will enjoy roaming in different places in the sunny weather. We will do our best to gather and help guiding you in your trip to Kuwait. Main places will be describe and you will have the decision to visit them or not ... so enjoy reading about famous places in Kuwait.

Kuwait towers:

Kuwait towers are one of the most famous places in Kuwait. You can enjoy delecious food in the resturants there. also you can enjoy the charming view of Kuwait. Also you can buy souvenir to remember and show it to your friends.kuwait towers distinctively positioned in the Arabian Gulf Road in the heart of Kuwait City. Designed by Swedish Engineers Sune Lindström and Malene Björn and built by Energoprojekt, a contracting company from Belgrade, Yugoslavia; the Kuwait Towers was officially opened on 1st March 1979.

Comments [redacted] [Delete all comments](#)

Threaded mode

 [redacted] said
at 12:41 am on Mar 8, 2014
[Reply](#) [Delete](#)

hello my lovely group I am [redacted] of course you know me :)
I will be so happy to with all of you here ... places in Kuwait are too many and we have to write about specific places to make our group wiki page interesting . Please girs! let agree first on the name of places and then we can write and think hcw we can organize the page

 [redacted] said
at 1:57 pm on Mar 9, 2014
[Reply](#) [Delete](#)

hello [redacted] think we need to need to think about the most popular and attractive place in Kuwait because if you are a visitor you should be looking for places that are very attractive and popular. So what do you think of writing about Kuwait towers, Kuwait Arab c gulf street, scientfic centre . what do you think of my proposal my group mate??

 [redacted] said
at 10:20 am on Mar 10, 2014
[Reply](#) [Delete](#)

yes I think it is really a good idea , also as a tourist i think they want to know about shopping centres in Kuwait do you think we can write about different shopping centres ??

 [redacted] said
at 10:23 am on Mar 10, 2014
[Reply](#) [Delete](#)

4.3.3.2 The wiki activity

The wiki activity was selected in advance from the students' textbook to ensure that online activities were linked to the students' syllabus materials to further provide students with out-of school activities to practise what they have learned in class. As mentioned in Chapter 2, the curriculum includes a series of collaborative writing activities. In this study, students were asked to produce a poster about Kuwait, as this was the unit students were studying when the research was conducted.

The students' textbook activity divides the work between members of the group, but to ensure that the activity was fully collaborative, the wiki activity included no pre-activity labour division. As mentioned in the literature review (section 3.3), collaboration means co-labour without a clear division of the work. Therefore, some adaptations of the textbook's activity were made (see Appendix A for the original activity), and students were given the following adapted version (see Box 1).

Box 1 wiki activity sheet

Discussion and decisions:

- Decide who is going to be your audience in the wiki page.
- The whole class will produce a poster of Kuwait and this will be sub-divided into sub-topics and every group will be responsible for one topic.
 - Group 1: The state of Kuwait
 - Group 2: Culture of Kuwait
 - Group 3: Places to visit in Kuwait
 - Group 4: Food and restaurants
- Work with your group members, discuss your writing in your wiki forum, give feedback, change the wiki page when appropriate and save it.
- Support your writing using images to attract your reader.
- If you have finished your group's page, try to visit another group's page and give feedback.

Publishing your class wiki:

- If you have finished your poster, you can publish your work online if all class members agree on that!

As shown in Box 1, each group of students were assigned a sub-topic, however within each group there was no division of labour to ensure that each group worked collaboratively rather than cooperatively.

4.4 Instruments

As discussed in section 4.3.1, multiple methods were combined, which included: student background questionnaires, observing or tracking the online wiki interaction, teacher background semi-structured interviews, teacher stimulated recall interviews, and teacher and student semi-structured interviews. It should be noted that all these instruments were piloted and modified before being used in this study (see Appendix C). Before discussing the instruments, a pilot study report is presented.

4.4.1 The pilot study

Before conducting the main study, a pilot study was conducted in order to assess the procedures of the research, refine its design and more importantly pilot its instruments. The pilot study was conducted in August 2013 with 2 EFL teachers and their students from a secondary school summer camp in Kuwait. The pilot study helped to refine and narrow the focus of the research questions. Before conducting the pilot study, the study aimed to cover the online collaboration and the teachers' and learners' perceptions. The broad research questions were narrowed down and the main study focused only on the online interaction and how teachers support the process of students' collaboration (see appendix C).

The pilot study also helped to consider two important factors when choosing participants for the main study. First, there was a need to make sure that the schools selected for the main study were equipped with computer labs with a very good Internet connection service. Secondly, there was a need to consider the teachers' and learners' IT skills and teaching background. Accordingly, the Centre for Research and Educational Curriculum was asked to look for volunteer teachers with good IT skills and with different levels of teaching experience and technology use. This is to ensure that teachers and learners had the basic skills that could help them to comprehend the wiki training easily and to increase the possibility of having variations in the way the teachers interacted with the students. Based on the pilot study, it was also decided to extend the teachers' training time by asking them to join the students' training sessions to receive further technical training. Furthermore, a notable limitation of the pilot study was the lack of evaluation by the teachers and students for the training sessions they received. Therefore, it was necessary to consider this in the main study by designing a training evaluation form for students and an interview schedule for teachers.

There were some modifications on the main study's instruments. For example, the pilot study background questionnaire included a section on collaborative language-learning experiences generally, rather than a section on collaborative writing in particular. It was therefore necessary to add a new section on collaborative writing activities in which some questions were asked. In addition, teachers' background questionnaire was modified to include some questions about their IT skills, their understanding of wikis such as Wikipedia, their beliefs and behaviours in relation to errors corrections.

At the outset, it was planned to conduct the study with five teachers from different secondary schools in Kuwait. However, in the process of conducting the pilot study, some contextual constraints limited the number of teachers to three teachers for the main study. These constraints were due to the facts that the study included intervention and there would be some practical problems in finding volunteers. Further, from the pilot study, it was noted that the complexity of online analysis requires a small number of participants to engage in in-depth exploration and analysis. The pilot study also showed that students would need more time to complete their projects. Therefore, the online activity time was extended from 4 weeks (in the pilot study) to 8 weeks (for the main study) to allow learners more time to use wiki.

The pilot study helped to check the suitability of the data analysis approach in answering the research questions. At the outset, it was planned to quantify the students' online collaborative behaviours and their levels of participation (i.e., by looking at the number of comments and editing behaviours) to provide an overall perspective of their online interaction. However, after being immersed in the process of data analysis for the pilot study, it was noted that quantitative analysis was not suitable for answering the research questions and for achieving the broad aim of the research. Therefore, adopting a qualitative perspective was believed to be more informative as a way of answering the research questions. Furthermore, it was noted that analysing the wiki discussion alone provided an incomplete picture of the level of collaboration; therefore, it was necessary to develop formalism for analysing the wiki discussion along with the writing behaviours. The following sub-sections discuss the main study's instruments and their designs.

4.4.2 Questionnaires

All the students completed a background questionnaire to collect general background information and bio-data (Dörnyei & Csizèr, 2012). This was done because previous CALL research has emphasised the need to understand the learners' characteristics, previous language learning experiences and experiences with technology, before using technology (Chapelle & Jamieson, 1990; Egbert, 2005; Huh & Hu, 2005; Levy & Stockwell, 2006). Collecting this background data helped to understand the impact of the contextual variables, to provide a thick description of the participants (see section 4.7), and to assist in selecting the embedded groups for analysis (see section 4.4.2).

The questionnaire topics were developed taking into consideration previous CALL research and instruments (Chapelle & Jamieson, 1990; Guo & Stevens, 2011; Levy & Stockwell, 2006), and the focus of the current study. The learners' age, language learning and technology related background information were prioritised. Since the focus of the study was on collaboration, other themes were added to explore students' previous experiences with FTF collaborative writing activities.

When constructing the questionnaire, ambiguous and double-barrelled questions were avoided (Dörnyei, 2007; Dörnyei & Csizèr, 2012). Open, closed and Likert-scale questions were used (see Appendix D). The Likert- scale items (i.e., statements with a choice of five or six responses to indicate the extent to which participants agree/disagree about behaviours) included statements about collaborative and non-collaborative behaviours that are mentioned in previous studies (e.g. Mercer, 1995; Mercer & Fisher, 1992; Storch, 2002; Tan et al., 2010). Students' responses to the Likert-scale items were important, since they facilitated the understanding of what type of behaviours a particular student might typically engage in, which helped to classify students as collaborative or non-collaborative. The questionnaire was translated into Arabic to ensure the comprehensibility of the written information (Dörnyei & Csizèr, 2012).

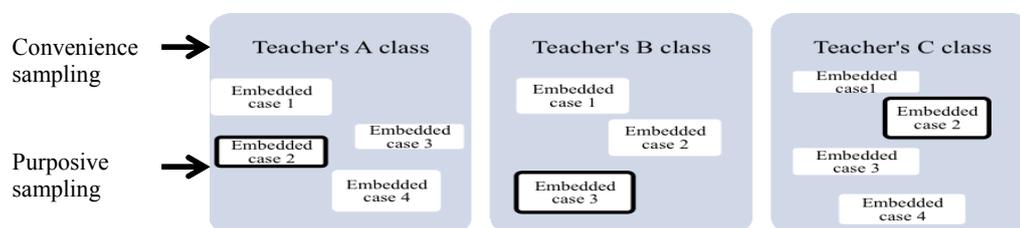
4.4.3 Observing/tracking a wiki platform

To explore how teachers and students interact in online wiki collaborative writing activities, data were collected from the wiki platform (i.e., the wiki threaded discussion, wiki pages and the history of edits). Tracking/observing online interaction is considered a useful method for collecting online data (Ware & Rivas, 2012). It involves on-going systematic observation and logging into the wiki platform (Herring, 2004a). This can be considered as a *virtual ethnography* (Hine, 2008), which involves active and in-depth engagement with teachers' and students' behaviours, whilst at the same time remaining almost invisible to the participants, due to the asynchronous nature of the online wiki interaction. As mentioned previously, this was facilitated by the email notifications provided by the PBwiki platform.

In order to facilitate the process of tracking students, purposive sampling was employed. This means, "choosing a case because it illustrates some features or process in which we are interested" (Silverman, 2006, p. 306). Figure 3 illustrates the sampling strategies that

were used in the study. As mentioned before in section 4.3.2, convenience sampling was used to select the main research participants (teachers and their classroom students). Since there was more than one embedded case (i.e., online wiki group) in each teacher's class, one embedded group from each teacher's class was chosen using purposive sampling. As the current study was focused on online collaboration, teachers were asked to nominate the group that they thought consisted of representative students (i.e., most collaborative and least collaborative students with different language abilities). This was done to explore how teachers assisted non-collaborative and collaborative students in a group. In order to cross-check teachers' nominations, the students' answers to the background questionnaire, more specifically to the Likert-scale questions, were also considered. Whilst students were interacting online, notes were taken as a basis for designing the teacher stimulated recall interviews (see section 4.4.4).

Figure 3 Sampling strategy



Tracking the wiki platform is the only method available to gather online wiki data, however it has some limitations. As discussed previously (section 4.3.1), gathering the data using text-based communication only reveals the teachers' and students' online behaviours, not why they were behaving in a specific way. Furthermore, it provides tentative interpretations which affect the validity of the study (Herring, 2004b). Interviews were conducted to overcome this methodological limitation.

4.4.4 Semi -structured interviews

There were two main purposes for using semi-structured interviews: (1) to gather background information about the teachers and, (2) to explore the teachers' and the students' experiences of and reflections on their online wiki interaction. Although these data do not directly answer the research questions, interviews can prompt and illuminate things that cannot be observed (Ware & Rivas, 2012; Wellington & Szczerbinski, 2007), thereby providing a comprehensive understanding of the online behaviours. Background

interview data also helped to provide a thick description of the teachers (presented in the data analysis chapter).

Amongst other types of interviews, a semi-structured interview was chosen. This refers to the type of interview that can be located somewhere between a highly structured interview and a completely unstructured interview (Berg, 2007; Cohen et al., 2011; Kvale, 2007). Semi-structured interviews concentrate on specific themes and also cover some pre-determined questions (Wellington, 2000). The format of the questions in semi-structured interviews is mainly open-ended and allows for elaboration and for asking the interviewee to clarify their responses by using a set of *probes* (i.e., questions which ask for clarification, details or elaboration) and *prompts* (i.e., possible answers or alternative questions used when the interviewer needs further guidance); both techniques are used to enhance the richness and depth of responses (Bernard & Ryan, 2010; Cohen et al., 2011; Robson, 1993). Using this type of interview allowed for direct interaction with the research participants, speaking with them, listening to the meaning they attach to their social reality, and gaining an opportunity to access their social worlds, corresponding with the study's paradigmatic stance (section 4.2).

When constructing the interview schedule, the formatting and sequence of the interview questions were considered (Cohen et al., 2011). That is, it was necessary to ensure that the vocabulary used was simple, clear and easy to understand. Furthermore, double-barrelled, ambiguous and leading questions, and academic jargon were avoided (Merriam, 1988; Robson, 1993; Wellington & Szczerbinski, 2007). The sequence of the interview questions was also taken into consideration (Kvale, 2007). The questions moved from factual and simple questions, to more complex ones (Berg, 2007). Questions related to perceptions were asked before those related to experiences, since participants might change their perceptions to match their reported experiences and behaviours. All the interviews were conducted in a quiet classroom and recorded using an iPhone 4 recorder.

4.4.4.1 Teacher background semi-structured interviews

Semi-structured interviews were an appropriate method for collecting background information about teachers, due to their limited number. Collecting background information from the teachers was important for two main reasons: for transferability

(discussed in section 4.7), and to understand the teachers' characteristics since evidence suggest that teachers' past experiences of teaching and learning, and the broader institutional culture of the classroom, shape how teachers use a particular technology (Attia, 2011; Mercer, 1996; Mercer & Fisher, 1992).

A total of three background interviews were collected (Appendix E), which covered themes such as the teachers' backgrounds in teaching and training experiences, attitudes towards technology generally and specifically in their EFL classrooms, and teachers' language teaching philosophies (Lam, 2000; Levy & Stockwell, 2006; Mumtaz, 2000). In addition, other topics and sub-topics were added based on the focus of the current study and the findings of the pilot study. These included the teachers' beliefs about error correction and peer review, their understanding of wikis, and their experiences and perceptions of in-classroom collaborative writing activities. In relation to in-classroom collaborative writing activities, some questions were adapted from previous similar research-focused instruments (Woo, 2013).

4.4.4.2 Post activity semi-structured interviews

There were two post activity semi-structured interview schedules used in this study. The first was with the teachers (see Appendix F) and the second was with the students (see Appendix G). The main purpose of these was to explore the teachers' and the students' overall experiences of interacting via a wiki. As mentioned earlier (section, 4.3.1), this data aimed to, "provide richly descriptive information to help contextualise any patterns or anomalies that emerge from analysing [the] online interactions" (Ware & Rivas, 2012, p. 113).

For the teacher and student interview schedules, topics and sub-topics were constructed with reference to previous research studies (Chao & Lo, 2011; Li, 2014; Nguyen, 2011; Woo, 2013; Woo et al., 2013; Zorko, 2009). These topics were related to overall perceptions and experience of online wiki interaction. The broader topics were related to the use of wiki technology, interacting via a wiki (teacher-student, student-teacher and student-student), carrying out a collaborative writing activity via a wiki, a teacher's reflection on students' online behaviours, and students' reflections on the teacher's online presence.

Although conducting a group interview rather than semi-structured interviews with the purposive sample (i.e., the wiki group of students) was an option that could help to save time and provide an insightful discussion with the group members (Creswell, 2007; Patton, 2002), this method was not chosen because in a group setting it is difficult to follow each individual's views and to control power hierarchies that affect who speaks and when (Robson, 1993). Furthermore, some participants may feel reluctant to express their negative views in front of other group members. Another option considered was stimulated recall interviews, however, it was not feasible to interview students regularly due to their study commitments.

4.4.5 Teacher stimulated recall interviews

Teacher stimulated recall interviews were used to enhance the interpretations of the online interaction. This involved selecting extracts of online interaction and asking the teachers general questions such as, "what is happening here?" to prompt a response (see Appendix H for an example). It should be noted that the purpose of stimulated recall in this study was not to determine the participants' thought processes, but to, as Friedman (2012) suggests, "allow[ing] participants to provide interpretations of their own or other's actions, these interpretations are not taken as fact, but as one of many possible perspectives" (p.190). Gass and Mackey (2000) state that, "stimulated recall is often employed in conjunction with other methodologies, as a means of triangulation or further exploration" (p.19). In this case, the use of stimulated recall was purely qualitative, enabling teachers to comment on repeatedly occurring online behaviours.

The procedure for conducting stimulated recall interviews involved printing some extracts from the wiki platforms in advance. Extracts involved teachers' and students' wiki posts and writing behaviours. General questions were designed in advance based on the teacher and student online behaviours observed. The teachers were asked to read these interactions and comment on them. Whilst the teachers were speaking, interruptions of and reactions to participants' responses were avoided to minimise instances of distraction or influence (Gass & Mackey, 2000). Backchannelling such as *oh*, *mhm*, *I see* and *ok* were frequent responses to their comments, however in situations where a teacher's comments on an interaction were unclear, some probes were used.

4.5 Procedures

This study spanned a total of thirteen weeks. The research was conducted during the second academic term (from February 2014 to June 2014). Table 2 presents the main phases of the study (see Appendix I for the detailed process).

Table 2 Research procedures

Week	Activity	
<i>Week 1</i>	Distributing information sheets Consent forms	
	Teacher background interviews Student background questionnaires	
	Teacher training sessions and wiki activities	
	Teacher training sessions and wiki activities	
<i>Week 2</i>	School holiday (Kuwait National and Liberation Days)	
<i>Week 3</i>	Student training sessions and wiki in class activities (The school poster).	
	Distributing students' and teachers' wiki personal login details & wiki activity sheets	
<i>Weeks 4, 5 & 6</i>	Online wiki collaborative writing activity (wiki posters about Kuwait)	
<i>Week 7</i>		Teacher stimulated recall interviews
<i>Weeks 8, 9 & 10</i>		
<i>Week 11</i>		Teacher stimulated recall interviews
<i>Week 12</i>		Teacher experience semi-structured interviews
<i>Week 13</i>	Student experience semi-structured interviews	

The first week was an orientation week, in which teachers and students were introduced to the research by information sheets that were distributed (Appendix J), and those who volunteered were asked to sign a consent form (Appendix K). Teachers were asked to participate in the background semi-structured interview, which lasted approximately 25 minutes. The student volunteers were asked to complete a self-administered background questionnaire, lasting approximately 15 minutes.

Training sessions were conducted in the second and the third weeks for teachers and students, in the school computer labs. The teachers received two hour-long consecutive training sessions and were asked to join the students' training sessions, which lasted four hours (over two consecutive training days). The training was technical rather than pedagogical, to avoid affecting the teachers' and students' behaviours. The two general objectives of the training were to demonstrate the main wiki skills, such as writing, editing, posting comments, inserting URL links, pictures, videos, and checking the page history, and to provide an opportunity to practice the skills and to engage in an authentic wiki collaborative writing activity inside the classroom.

To achieve these objectives, a PowerPoint presentation was delivered to both teachers and students. The main aim of this was to introduce wikis, showing examples of real wiki pages, and demonstrating the wiki skills mentioned above (details in Appendix L). The teachers and students were given training handouts (Appendix M) and asked to observe the researcher demonstrating wiki skills. They were then given opportunities to practise independently, whilst technical assistance was provided by the researcher and the ICT teacher. To ensure that the teachers and students had fully understood how PBwiki works, they were asked to practise a training activity in the classroom. The three teachers were asked to write about their experiences of teaching English, and the students were asked to produce a brochure about their schools.

After conducting the training sessions, the teachers and students were asked to evaluate the training. Translated evaluation forms were distributed to the students (Appendix N) and interviews were conducted with the teachers (Appendix O). The training was received positively; the teachers and students expressed their satisfaction with it, stating they were confident in performing various wiki skills (see Appendix P).

From week four to week eleven, the teachers and students were asked to work on the wiki activity as an out-of-school activity,⁹ to produce a wiki poster about Kuwait. Then, stimulated recall interviews were conducted twice with each teacher during weeks 7 and 11. A total of six stimulated recall interviews were transcribed. The stimulated recall interviews varied in their length across teachers; the longest one lasted for 13 minutes

⁹ It was observed that some students were logging in during school time since they were using the school's computer lab to work on the activity during their spare time.

whilst the shortest was 7 minutes. Variations in the length of the interviews were based on the teachers' availability, their time, as well as the nature of their online interventions. Some of the teachers spoke in Arabic therefore the translation of some interviews into English was necessary.

During the final two weeks (weeks 12 and 13), the teachers and students participated in post-activity semi-structured interviews, which lasted approximately 15 minutes. Student interviews were conducted with students who were in the embedded case (i.e., the observed wiki groups). A total of three teacher semi-structured interviews and twelve student semi-structured interviews were conducted. Interviews with students were conducted in Arabic, and then these were transcribed and translated into English.

4.6 Analysis

To be able to capture the process of collaboration in a multimodal¹⁰ online context such as a wiki, it is necessary to focus on the process as it unfolds in the online discussion (i.e., threaded mode) and on the editing behaviours (i.e., text mode). As a context of interaction, Herring (2013) describes the wiki as *convergent media computer mediated communication*.¹¹ Relevant to this study, is the convergence of text (i.e., a wiki page) with text (i.e., the online discussion pages), rather than the convergence of text with other modes (e.g., images, videos or hyperlinks). Arguably, analysing one mode and ignoring the other would provide an incomplete picture of what actually occurred and this, in turn, might limit the understanding of collaboration. As discussed in the literature (sections 3.3 and 3.4.2.1), collaboration entails mutual discourse and initiatives to engage with what others suggest and write. This requires the analysis of the online discussion along with learners' actions/acts in the wiki text using the history record.

Although CMDA was originally applied to previous online contexts that had only one mode (e.g., chat), Herring (2013) argues that it is still a valid methodological approach for analysing a new convergent media platform, simply because text remains the predominant channel of communication between web users. CMDA is an approach

¹⁰ Interaction in the wiki is not limited to text-based communication since it can involve multimodal data, including videos, images and hyperlinks. However, since the focus of this study was collaborative writing, analysis was limited to discussion and writing behaviours.

¹¹ Others (e.g., Flewitt, Hampel, Hauck, & Lancaster, 2009; Hampel, 2013) refer to this as multimodal tools, which allow interaction via text, audio, videos and images.

rather than a theory, since it does not make any predictions about the nature of computer mediated discourse (Herring, 2004a, 2004b), but rather allows the combination of theories on discourse and computer mediated communication to examine a particular online phenomenon. In Herring's words, it is

An approach to the analysis of computer mediated communication that focused on language and language use; it is also a set of methods (a toolkit) grounded in linguistic discourse analysis for mining networked communication for patterns of structure and meaning broadly construed. (Herring, 2013, p.4)

This analytical approach can be supplemented with interview data to validate its interpretations (Herring, 2004a). Before discussing the theoretical assumptions of CMDA, a brief discussion is presented of some discourse analysis approaches generally, since the basic idea of CMDA is to adapt an existing method to the properties of digital communication media (Herring, 2004a, 2013).

Discourse analysis (DA) is concerned with studying the relationships between language use (whether spoken or written) and the context (i.e., the surrounding text and features of the situation) in which it is used (McCarthy, 1991). There are several DA approaches to studying naturally occurring classroom talk, such as linguistic discourse analysis, conversation analysis, and sociocultural discourse analysis (Mercer, Littleton, & Wegerif, 2004). In CALL research, linguistic discourse analysis and conversation analysis are the most widely used approaches (Lamy & Hampel, 2007).

Briefly, linguistic discourse analysis involves studying the social function of language, and how spoken/written sentences are organised to form larger meaningful units (Seedhouse, 2004). To analyse talk, this approach is concerned with what speakers do with language (i.e., speech acts and moves) and the internal structure of the overall functional unit (i.e., exchange and transaction). For example, in the classroom context, Sinclair and Coulthard (1975) identified the IRF exchange involving three moves: initiation-response-feedback. Each move consists of smaller analytical units (i.e., speech acts). That is, the initiation move could have the function of questioning, the response move could be the answer, and the feedback could be confirming. Conversation analysis is more concerned with analysing talk at the micro-level (i.e., the sequence of turns). Rather than focusing on the structural organisation of talk, conversation analysts focus on how social interaction is achieved by examining for example, how turn-taking is

managed in conversation, how utterances are interrelated (i.e., adjacency pairs), and issues of preferences of organisation within the conversation (Liddicoat, 2007).

Sociocultural discourse analysis is another approach, which is used to analyse talk in collaborative classroom activities (Mercer, 2004, 2010; Mercer et al., 2004). In contrast to linguistic discourse analysis, this approach is, “less concerned with the organisational structure of spoken language, and more with its content, function, and the ways shared understanding is developed, in social contexts over time” (Mercer et al., 2004, p. 203). It analyses how participants use language as a social mode of thinking to share and introduce new information, mutually engage with each other’s perspectives and pursue joint plans for action (Mercer, 2004). It is worth noting that this approach is associated with the SCT principles discussed in section 3.2, which view language as a mediational tool for learning and cognitive development. Sociocultural discourse analysis focuses on documenting the process of interaction between learners, and how they develop shared understanding and construct knowledge using the language (i.e., interpersonal plane). It also examines the effect of this process on students’ cognitive development (i.e., intrapersonal plane). For example, a sociocultural discourse analyst qualitatively analyses the talk that occurs between teachers and students in the classroom, and then quantitatively examines the nature of the students’ talk or an individual’s cognitive performance (Rojas-Drummond & Mercer, 2003; Rojas-Drummond et al., 2001).

To perform sociocultural discourse analysis, three levels of analysis need to be addressed (Mercer, 1995). The first level is performing linguistic discourse analysis by analysing the speech acts that students use: whether they use language to argue, elaborate, seek help, explain etc. The analysis focuses on how students react to each other’s talk. The second level is psychological, “an analysis of the talk as thought and action” (Mercer, 1995, p. 105). For example, analysts may examine the extent to which, “reasoning [is] visibly pursued through the talk” (Mercer, 1995, p. 105). The third level of analysis is cultural and relates to the fact that any interaction between teacher and students is located within and affected by a particular historical, institutional, and cultural context (Mercer, 2010).

Returning to the online context, Herring (2004a, 2004b) argues that the traditional content analysis for analysing online behaviours requires expansion, since new media have interactive text-based conversation features. One way of achieving this is by

incorporating methods such as the previously discussed discourse analysis approach. According to Herring (2004a), the core of CMDA as a method is adapting an existing DA method to the analysis of logs of online behaviours, which are grounded in empirical and textual observation of language and language use (e.g., messages, utterances, exchange threads, and archives). Herring (2004a) discusses three main theoretical assumptions underlying the CMDA approach. Firstly, the approach assumes that, “discourse exhibits recurrent patterns” (p.4). Secondly, it is assumed that discourse involves speaker choices and that these choices reflect cognitive and social factors. This means, “discourse analysis can provide insights into non-linguistic as well as linguistic phenomena” (Herring, 2004a, p.4). Thirdly, “computer mediated communication may be, but is not inevitably, shaped by the technological features of computer mediated communication systems” (Herring, 2004a, p. 4).

Thus, one advantage of the CMDA approach, compared with other DA approaches, is its consideration of the technological facets that can shape the interaction (Herring, 2007; Lamy & Hampel, 2007). According to Herring (2013), the convergence of two modes is a new technological facet that may shape the online interaction in multimodal technologies. Herring (2013) does not specify an analytical process for carrying out such analysis in a convergent online context such as a wiki. She does, however, draw attention to the fact that the discourse in a wiki is emergent and unprecedented, since a CMDA analyst faces more content to analyse (e.g., wiki edits along with talk/discussion pages). Other studies (Hampel & Stickler, 2012) have addressed the convergence of spoken and written language in video conferencing. Their study showed how participants used both modes of interaction in a complementary, compensating and competitive manner. Their analysis shows the importance of considering various modes of interaction to gain a better understanding of online interaction.

From the studies which have been reviewed previously in Chapter 3 (sections 3.5.1 and 3.5.2), it is clear that some studies has focused on the wiki discussion pages by adopting either content analysis or CMDA (although some studies did not explicitly mention CMDA as their analytical approach), whilst other studies that analysed the text mode drew on writing theories (e.g., process writing with its focus on peer feedback) and used a writing framework to describe the editing behaviours of students. However, the literature lacks a systematic approach of analysis that allows the analysis of both modes. Integrating both levels of interaction in analysing the collaborative process is essential,

since presumably what students discuss influences what is written, and vice versa. Relevant to this is Arnold, Ducate, Lomicka, et al. (2009) argument; they suggested that to fully investigate wiki collaboration, there is a need to examine not only the discussion but also the actions that are taken in the wiki text. Hampel also discussed a similar point by stating that:

Discourse analysis requires the collection of written texts and/or the recording and transcription of interaction. If the focus of a study goes beyond verbal language, transcripts need to include other modes such as body language, actions taken in the online environment, visual representations used. (Hampel, 2015, p. 147)

Therefore, to examine the process of discussion in online wiki interaction, this study applied CMDA as an approach, and sociocultural discourse analysis as a method of analysis of the threaded discussion, taking into consideration actions taken in the text (i.e., editing behaviours in the text mode). Sociocultural discourse analysis was chosen amongst other discourse analytic approaches for several reasons. Firstly, it aligns with the present study's theoretical perspective, namely SCT. It aims to study the nature and the functions of language in the pursuit of joint intellectual activity. Secondly, it was developed primarily to analyse S-S interaction where the teacher is seen as a discourse guide (Mercer, 2004). Thirdly, it has been used previously (Pifarre & Li, 2012; Pifarre & Staarman, 2011) to analyse the threaded interaction process between students whilst jointly writing a wiki text, and to explore teacher intervention in collaborative activity. To examine editing behaviours, a writing process framework from previous FTF and wiki collaborative writing studies was adapted. Table 3 illustrates the process of applying CMDA in the present study.

Table 3 CMDA analytical process

CMDA process	Application to wiki platform
Articulate the research questions	Discussed previously in section 3.7
Select computer mediated data sample	Wiki discussion and page history from 3 purposive sampling groups
Operationalise the concept in terms of discourse features	Collaboration (literature review sections 3.3, 3.4.2.1 and 4.6.1)
Select a method of analysis	(A) Sociocultural discourse analysis for the threaded mode (B) A writing process framework for wiki collaborative writing process at the text mode analysis
Interpret the results: (1) Summarise/synthesise the results of the data (2) Answer the research questions (3) Explain the unexpected results and consider broader implications	See data analysis/discussion chapters

The following section presents the coding frameworks for analysing the discussion and text modes. These frameworks were developed based on previous studies. This process of qualitative data analysis is described by Wellington (2000) as a mixture of a priori (i.e., pre-established) and a posteriori (emerging from the data) categories. Wellington believed that the possibility of data analysis is the most rational approach to analysing qualitative data, since categories derived from previous literature can help the researcher to make sense of the data and refine, clarify and develop new categories and frameworks.

4.6.1 Analysing the wiki interactions

Several frameworks were available for analysing S-S wiki interaction at both levels of interaction, since the majority of studies focus on this. However, framework selection was determined by the definition of collaboration on which the present study was based, and the alignment of the data with these frameworks.

To start with collaboration, defining collaboration in this study was based on previous studies (sections 3.3 and 3.4.2.1). As explained previously in the literature section (3.3), collaboration is defined as the co-construction of the wiki text, whilst having an on-going online discussion that reflects the mutual cognitive and social engagement of the

participants involved. Co-construction of the text means students' writing acts are not limited to adding new ideas individually in parallel, but also included editing each other's texts (grammar and content) and expanding on each other's ideas.

In order to operationalise the concept of collaboration in the wiki-threaded discussion, there were several frameworks in the literature (Arnold, Ducate, Lomicka et al., 2009; Cullen et al., 2013; Li, 2013, 2014; Li & Zhu, 2011; Nami & Marandi, 2013; Nguyen, 2011). Li's and Zhu's (2011) framework was excluded since they discussed patterns of interaction without providing detailed categories or language functions for each. Nami and Marandi's (2014) thematic categories of question/answer, criticism, expression of gratitude and feelings about writing were also excluded since the thematic categories were limited and did not capture the complexity of behaviours. Other frameworks were considered more relevant to how collaboration is defined in this study, for example, Arnold, Ducate, Lomicka, et al.'s (2009) study provided a detailed framework based on Curtis and Lawson's (2001) study; the framework was more comprehensive and detailed enough to capture various behaviours. Li (2013, 2014) provided a taxonomy of language functions, which was more extensive and involved a list of collaborative behaviours. The categories of Nguyen (2011), and of Mangenot and Nissen (2006) were also useful for conceptualising collaboration at the organisational, socio-cognitive and socio-affective levels.

It was decided to construct a framework based on the studies that would align with what emerged from the data. To do so, it was decided to classify behaviours as either collaborative or non-collaborative, since the data involved some non-collaborative behaviour. Then, it was appropriate to use the Mangenot and Nissen (2006) and Nguyen (2011) classifications of interaction to classify the posts, based on three levels of interaction. That is, interaction at the organisational level refers to students' collaborative behaviours when planning their work together and managing their online wiki activity. Interaction at the socio-cognitive level refers to how participants express their mutual respect for each other's contribution, how students challenge each other's ideas and especially how members negotiate with each other to attain a shared understanding during the discussion process. Interaction at the socio-affective level refers to how students get along with each other by highlighting interpersonal interaction and capturing group cohesion. Finally, a list of behaviours that were presented in Li's (2014), Arnold, Ducate, Lomicka, et al.'s (2009) and Curtis and Lawson's (2001)

studies were added to the framework, by adding some more collaborative and non-collaborative behaviours that emerged from the data.

To analyse the wiki text mode, there were also several possible frameworks to select from, for example Mak and Coniam's (2008) framework, which classified wiki writing as adding ideas, expanding ideas, reorganising ideas and correcting errors. Li (2013, 2014) provided a useful framework, classifying writing acts as adding, deleting, rephrasing, reordering and correcting, and this was clearer and preferable to that of Mak and Coniam (2008). Kessler and Bikowski (2010) also provided another framework involving elaborating, adding new information, deleting information, synthesising information, reorganising and inserting pictures, videos and links. However, none of these frameworks classified writing behaviour as collaborative or non-collaborative. Research into wiki and FTF collaborative writing activities argues that to claim collaboration has occurred, students' writing behaviours should involve examples of engagement with what others have written. This could be in the form of not only adding new ideas, but also expanding, elaborating, summarising and editing each other's texts (Arnold et al., 2012; Bradley et al., 2010; Storch, 2001b).

Bearing in mind these arguments, students' writing behaviours were classified as collaborative and non-collaborative (Storch, 2001b). Building on the previous frameworks, collaborative writing acts were considered to involve expanding on another's existing ideas, correcting another's existing text, incorporating another's suggestions, and synthesizing ideas. Non-collaborative writing acts were considered to involve adding new ideas in a parallel manner, deleting text with no prior discussion, correcting one's own text, and expanding on one's own ideas. Other writing acts were excluded based on what emerged from the data. For example, there were no instances of reorganising and rephrasing ideas in the present study data.

To date, no framework has been developed to examine teachers' interventions in the wiki context from a SCT perspective. However, some studies have looked at teachers' roles in other online contexts (e.g. Anderson et al., 2001; Garrison, Anderson, & Walter, 2001; Hauck & Hampel, 2005; Lamy & Goodfellow, 1999; Mangenot & Nissen, 2006; Pawan et al., 2003; Shield et al., 2001). One of the main frameworks that could have possibly be applied is Garrison et al.'s (2001) *community of inquiry* framework to analyse critical thinking skills. The framework consists of three main categories:

cognitive presence, teaching presence and social presence. Although the framework is designed to capture the interaction of students whilst teachers are present and has been extensively used in the literature, the framework was excluded for several reasons. Firstly, the framework classifies S-S cognitive processes as triggering, exploration, integration and resolution, and it proposes that the quality of students' thinking processes gradually develops through these processes. This does not align with the current study definition of collaboration. Secondly, this framework proposes three main roles for the online teacher: designing and organisation, facilitating discourse, and direct instruction. The framework assumes that the teacher plays a role in designing the online course, which was not the case in the present study. Thirdly, since the framework was developed for distance learning, it proposes that teachers play an important teaching role whereby they deliver subject knowledge, which was not also the case in the present study.

Other studies in the language-learning context (Lamy & Goodfellow, 1999; Mangenot & Nissen, 2006; Wen et al., 2014) and in other educational contexts (Berge, 1995; Maor, 2003) provide a more comprehensive picture of teachers' roles in promoting effective S-S collaboration. These studies helped to construct a framework by conceptualising teachers' roles in terms of cognitive, managerial and socio-affective roles, which help to describe how teachers intervene in students' online collaboration. To align the S-S framework with the teacher framework, it was decided to re-label these as support at the organisational, socio-cognitive and socio-affective levels. For each category, a set of indicators was developed based on what emerged from the data. Although before conducting the study, it was expected that the teacher would only intervene in the threaded discussion, the data showed that all three teachers also intervened in the students' interaction at the text level by editing the students' texts. This led to reconsidering the categories in the framework and to the addition of the text mode intervention as illustrated in Table 4 (see Appendix Q for detailed definitions of each code).

Table 4 Coding framework

Behaviours	Teacher's support	Student interaction	
		Collaborative	Non-collaborative
Threaded Discussion	Support at the organisational level → Giving task instructions → Promoting participation → Managing time → Providing resources → Promoting sharing of resources → Notifying students about edits	Interaction at the organisational level → Organising the work → Initiating the writing activity → Seeking peer permission	Interaction at the organisational level → Absence of organising the work → Seeking teacher feedback on planning → Seeking teacher permission → Seeking task instructions from the teacher
	Support at the socio-cognitive level → Promoting giving language related feedback → Giving language related feedback → Giving feedback → Promoting giving feedback → Promoting giving help → Promoting editing behaviours → Giving help → Eliciting ideas	Interaction at the socio-cognitive level → Seeking peer feedback → Giving feedback → Suggesting → Elaborating → Requesting clarification → Giving clarification → Acknowledging → Agreeing → Seeking peer language related feedback → Giving language related feedback → Seeking peer help → Giving help	Interaction at the socio-cognitive level → Refusing → Seeking teacher help → Seeking teacher feedback → Seeking teacher language related feedback
	Support at the socio-affective level → Encouraging → Promoting group cohesion → Social talk → Greeting → Expressing emotions	Interaction at the socio-affective level → Expressing emotions → Other talk → Thanking → Praising → Apologising → Greeting	Interaction at the socio-affective level → No social interaction → No evidence of group cohesion

Behaviours	Teacher's support	Student interaction	
		Collaborative	Non-collaborative
Text mode	<ul style="list-style-type: none"> → Correcting students' texts → Deleting 	<ul style="list-style-type: none"> → Text co-constructed with negotiation → Expanding on another's existing ideas → Synthesising another's existing ideas → Correcting another's existing text → Incorporating another's suggestions 	<ul style="list-style-type: none"> → Text constructed with little negotiation → Expanding on own existing ideas → Adding new ideas → Correcting own existing text → No incorporation of another's suggestions → Revision made without consultation

4.6.2 Analysis process

Each case was analysed separately by creating a case database in NVivo 10¹² (Gray, 2009). This involved systematically gathering all collected data sources for each individual case in one place and then condensing it by employing a purposive sampling strategy for analysis. The second step was the immersion stage, which involved engaging deeply with all data sources by reading the interaction transcripts interactively and repeatedly, writing memos and coding them according to the three levels of interactions: organisational, socio-cognitive and socio-affective. This process was done using a combination of Nvivo 10 and Microsoft Word. The comment and highlighting tools in Word helped not only to code the data, but to also develop memos about it.

Since discussion normally precedes writing, the wiki posts (wiki threaded discussion) were first coded into the behaviours students and teachers engaged in. A wiki post could be a candidate for more than one code so on occasion two or more codes were assigned. After coding the wiki posts, attention was given to how far participants developed a shared understanding and how they reacted to each other's utterances, by employing sociocultural discourse analysis. Attention was given to S-S interaction, which involved teacher intervention, since this was the focus of the study. Furthermore, attention was given to the timing of the posts and through tracking the page history, some editing behaviours were matched with the students' and teachers' discussion (see screenshot 2).

¹² Nvivo 10 is a qualitative analysis computer program, which helps to gather a huge amount of data and classifies this as nodes; each node includes a set of similar data, which represents one category.

An initial interpretation was written, and then interview data were coded thematically according to the organisational, socio-cognitive and socio-affective categories. When participants reported things that were related to specific instances of their online behaviours, this was highlighted and attached to a specific sequence of interaction. Some of participant interview quotes validated the interpretation, whereas others illuminated things that were related to why they were behaving in certain ways. After performing a case analysis, a cross-case synthesis was employed. This aimed to explore similarities and differences across cases (Aita & McIlvain, 1999; Yin, 2009).

Screenshot 2 Wiki text and wiki threaded modes

Comparing versions of **Group 2**
 Showing changes between [April 22, 2014 at 5:13:55 pm](#) (~~crossed-out~~) and [April 22, 2014 at 5:19:53 pm](#) (underlined)

Text mode

Dress in the Kuwaiti culture :

Dress in the Kuwaiti culture is divided into two main categories , the formal traditional clothes and modern western styled clothes. The formal traditional cloth for women is wearing "abaia" which means a large black piece of clothing that covers a women body and they can wear it after wearing their normal clothes. In addition, as Islamic country, most women in the Kuwaiti society cover their hairs with a scarf which is called in the Kuwaiti dialect "Malfa'a". It can be colourful and should cover the women's hairs. The traditional cloth for men is wearing "Dishdasha" which is a large robe that covers the whole body and under Dishdasha , they wear white cotton pants. Also, men wears hats and Qitra to cover their heads.

As a tourist , you have to consider the following points if you are going to visit Kuwait. Kuwait is conservative country and Kuwaiti people are very adheres to customs and traditions. They respect their own cultural beliefs and try as much as they can to protect them. Therefore, you need to respect these tradition by wearing modest and respectable clothes.

Threaded mode

 said at 11:48 pm on Apr 22, 2014
[Reply](#) [Delete](#)

 by the way I did not understand what you mean by "adheres to custom and tradition" can you explain the meaning of adheres is it like close to or hold ?? was about to edit it but I though it is better to ask you first

 ~~minhannah~~ said at 5:58 pm on Apr 23, 2014
[Reply](#) [Delete](#)

can anyone answer  question .. I know there are some of you knowing the answer come in girls you don't have enough time  ??

 said at 7:49 pm on Apr 23, 2014
[Reply](#) [Delete](#)

 check unit 3 last term we have taken its meaning .. It means to abide or in other words stick to the customs and tradition .. people strongly stick to something ...

 said at 9:20 pm on Apr 23, 2014
[Reply](#) [Delete](#)

yeah me to I dont think there is something wrong with the word .. I also know what it means .. so we can leave it as it no need for editing ..

Screenshot 2 presents the wiki platform. The text mode interaction presents text added (underlined) by one of the students; this addition stimulated S-S interaction in the threaded mode. As illustrated, this was followed by S-S interaction to discuss the

meaning of the word ‘adhere’. To present the interaction processes in the data analysis chapter, it was decided to present them together as extracts (see as an example extract 1, as illustration of the interaction in screenshot 2). The extract included the wiki interaction, whether there were comments or writing, with the time, date and the name of the person, who performed the action whether it was the teacher (T) or a student (S), and the types of writing act (i.e., edits) and comments. Writing behaviours were highlighted in grey. Where the text was added, it was underlined and where edited it was struck through. If a reply comment was added, an arrow was used to indicate this.

Extract 1 Wiki online interaction transcript

Wiki interaction	By	Types of comments/edits
<p>Eman wrote at 5:19 p.m. on April 22, 2014 (...) As a tourist, you have to consider the following points if you are going to visit Kuwait. Kuwait is conservative country and Kuwaiti people are very adheres to customs and traditions. They respect their own cultural beliefs and try as much as they can to protect them. Therefore, you need to respect these traditions by wearing modest and respectable clothes.</p>	S	Adding new ideas
<p>Samar said at 11: 48 p.m. on April 22, 2014 Eman by the way I did not understand what you mean by "adheres to custom and tradition" can you explain the meaning of adheres is it like close to or hold ??I was about to edit it but I though it is better to ask you first</p>	S	Seeking peers language related feedback + requesting clarification
<p>→ Miss Wesam said at 5:34 p.m. on April 23,2014 can anyone answer Samar’s question .. I know there are some of you knowing the answer come in girls you don't have enough time Laila, Sue any idea ??</p>	T	Promoting giving language related feedback + managing time
<p>→ Sue said at 7:49 p.m. on Apr 23, 2014 Samar check unit 3 last term we have taken its meaning .. it means to abide or in other words stick to the customs and tradition .. people strongly stick to something ...</p>	S	Giving language related feedback
<p>→ Laila said at 9:20 p.m. on Apr 23, 2014 yeah me to I dont think there is something wrong with the word .. I also know what it means .. so we can leave it as it no need for editing ..</p>	S	Acknowledging + Agreeing

4.7 Trustworthiness

The trustworthiness of the study was enhanced by consideration of four criteria: credibility, dependability, confirmability and transferability (Lincoln & Guba, 1985).

Credibility means the degree of confidence in the truth and the adequate description of the data and its interpretation (Mertens, 2005). Credibility as a concept checks the relationship between the researcher's interpretation/depictions of the observed reality and the degree of credibility of these to the research participants themselves (Lincoln & Guba, 1985). It also seeks to demonstrate that the research design and findings accurately identify and describe the social phenomenon (Carcary, 2009). In order to enhance the credibility of the present study, three techniques were applied, namely persistent observation, triangulation, and member checking. Firstly, persistent observation was adopted throughout the study. This involved systematic and constant observation of the online behaviours, identifying recurring behaviours, taking notes, and formulating questions for the teachers to get an in-depth perspective (Lincoln & Guba, 1985). Secondly, triangulation was used, and this involved, "bringing more than one source of data to bear on a single point" (Marshall & Rossman, 1989, p.146). In this study, interpretation of the online interaction was strengthened by interview data (as discussed in section 4.3.1). Thirdly, member check sessions were conducted with the research participants. This meant taking the research findings back to the research participants to see if the meaning and interpretation assigned to them was accurate and matched participants' perspectives (Liamputtong, 2009). Reports of the main findings of the study were sent to and shared with the research participants via Skype and emails. All the teachers responded and confirmed the interpretations, however only three students from the purposive sample replied to the emails and confirmed the main interpretations.

Dependability relates to credibility and is parallel to reliability (Miles & Huberman, 1994; Robson, 2002). It concerns whether, "the process of the study is consistent, reasonably stable over time and across researchers and methods" (Miles & Huberman, 1994, p. 278). It is achieved through transparency about the research procedures that led to the findings, and consistency whilst carrying out the research (Carcary, 2009). To consolidate this, an *audit trail* was used, which involved documenting the main research activities, methodological and analytical decisions, and reflecting on the research process (Carcary, 2009). The procedures for data collection (section 4.5) and data analysis were also documented in detail (section 4.6). This aimed to allow the reader to assess the extent to which systematic and proper research practices had been followed (Shenton, 2004). Inter-rater reliability of the coding process was also important; this involved checking whether the same codes were similarly assigned to given data by two

separate coders (Silverman, 2006). A two-hour training session was held with another PhD student who had a background in CALL and discourse analysis. The framework and its categories were explained to her, and then the coding process of randomly selected extracts, was done independently by both researchers. Instances of agreement and disagreement were counted, and following Miles and Huberman's (1994) inter-coder reliability formula,¹³ the inter-rater agreement reached 86.9%. The discrepancies were resolved by discussion. To ensure consistency in the data analysis, Nvivo 10 and Microsoft Word (the commenting and highlighting functionalities) were used.

Confirmability refers to the degree to which the findings and interpretations are grounded in the data (Lincoln & Guba, 1985; Mertens, 2005; Miles & Huberman, 1994). To consolidate confirmability, bias is explained in section (4.8). It was important to ensure that the findings resulted from participants' ideas and behaviours rather than being affected by the researcher's preferences or predispositions (Shenton, 2004). A detailed methodological description has been given including explicating the process and the logic of data analysis (in section 4.6). Several online transcript and interview quotations are provided in the data analysis chapter to allow the reader to determine whether or not the main claims or findings are grounded in the data collected. Confirmability was also achieved through triangulation and member checks as mentioned in relation to credibility.

Transferability refers to whether the findings are transferable to other contexts, bearing in mind that findings cannot be generalised beyond the study participants. In order to meet this criteria, three main elements were considered: (1) a detailed description of the phenomena under study (see Chapter 5), (2) the broader sociocultural context in which the study was conducted (see Chapter 2), and (3) participants' thick descriptions (Chapelle & Jamieson, 1990; Friedman, 2012; Shenton, 2004). Description of learners' proficiency levels, ages, and their past experiences with technology and collaborative writing activities as well as teachers' characteristics have been highlighted (Chapelle & Jamieson, 1990) in this study (see Chapter 5). It was hoped that presenting this thick description would allow the reader to determine whether the findings might be transferable to another context with similar characteristics. Since thick description is defined and understood differently (see Ponterotto, 2006), thick description in this study

¹³ Reliability= $\frac{\text{total number of instances of agreement}}{\text{total number of instances of agreement+disagreement}}$

was defined based on Denzin's (1989) description: "a thick description does more than record what a person is doing (...) it presents detail, context (...), it inserts history into experience (...), in thick description the voices, feelings, actions and meanings of interacting individuals are heard" (p.83).

4.8 Researcher's stance and potential sources of bias

As previously discussed, acknowledging the researcher's role and bias is important in enhancing confirmability. A reflection about oneself as a researcher and oneself in relation to the topic is critical to minimise bias (Norris, 2009). As a language teacher, my academic interest in CALL and collaborative writing activities motivated me to pursue this study. I was fully involved in the process of conducting the study and interacting with the teachers and the students in the schools. I designed the wiki platform, organised the training sessions, and I also assisted the teachers and students when they encountered any technical problems in the wiki platform.

Whilst the students were interacting online, I adopted an etic role (an outsider view). That is, I was an invisible online observer, recording notes about the teachers' and students' online behaviours and consistently checking changes on the wiki pages. However, my observations and the interpretations of the data were biased by my interest in SCT and my previous knowledge of collaborative writing and wiki studies. That is, I approached the topic from a SCT perspective, concerned more with how teachers play the role of facilitator of student collaboration, and how students assist each other to jointly write their wiki text.

To minimise my bias prior to conducting the study, I examined the literature critically and familiarised myself with the challenges of collaborative writing generally, and the negative findings about using wikis. Whilst conducting the study, I tried to be open-minded to alternatives, to accept other views, and to minimise my effect on participants (Norris, 2009). I avoided imposing my SCT pedagogical ideas on how teachers should behave with students and how students should interact together. I did this by avoiding offering explicit or implicit guidance to teachers or students on how best to interact in the wiki context. I also avoided designing a task that might control their behaviours. I tried as much as I could to give them the chance to behave naturally. When I conducted the interviews, I allowed teachers and students to talk freely without influencing their

ideas with my background knowledge. Interruptions occurred only when there was a need to elaborate or clarify a particular point. Whilst reporting my data analysis, I also considered critically some non-collaborative behaviours that students and teachers engaged in.

4.9 Ethical considerations

To ensure that the research was ethical, several issues were considered prior, during and after conducting the study. Gaining official permission is suggested as the first step to consider when researching any particular phenomenon (Cohen et al., 2011; Creswell, 2005). The University of York granted approval prior to conducting the research. Permission was also obtained from the Centre of Research and Educational Curriculum, and the Kuwaiti Ministry of Education (Appendix R). The procedures and data collection instruments were checked to ensure their suitability for secondary school age students.

When designing the study, the risks were weighed against the benefits (Berg, 2007). It was essential to ensure that the study and its results would not negatively affect the participants' reputations, careers or emotions (Berg, 2007; Flick, 2006). It was determined that the study would be likely to lead to tangible benefits for the teachers and the students (Hammersley & Traianou, 2012; Miles & Huberman, 1994; Richards & Schwartz, 2002).

When entering the classroom, the researcher's role was adopted to avoid deceiving or cheating the students or the teachers (Berg, 2007). Participation was voluntary and information sheets were distributed to clarify the research process, the participants' rights, and any potential benefits or risks. Participants also gave formal written consent on a consent form. In Kuwait, there was no need to get parental consent because students aged 16-17 years old are able to give consent themselves. When explaining the research to the students, incentivising and persuasive styles of recruitment were avoided. Rather, the associated research benefits (e.g., developing writing skills, learning how to use wikis and interact online with teachers and peers) were emphasised.

Rapport and a respectful relationship with the research participants were established (Holloway & Wheeler, 2002). This was achieved by avoiding an authoritative tone and

respecting participants' decisions and autonomy. Students who decided not to participate were treated respectfully. To ensure equality, they were given the chance to attend the training sessions and to participate in the training activity; however, no data were collected from them. The decision of some participants to stop writing in the wiki during the exam period was also respected, to reduce the level of anxiety and stress. It was also important to establish a trusting relationship by valuing participants' points of view. To consolidate this, they were asked whether they wanted to have a private or public wiki platform. Their decisions were respected and considered and as a consequence, all the wiki platforms were private. All the research participants were treated equally to ensure justice. High and low language proficiency students were treated equally. Whilst conducting the interviews a non-judgemental stance was adopted, by valuing all the behaviours and perceptions of the students and teachers (Holloway & Wheeler, 2002).

Two main ethical issues were related to data analysis and presentation. Firstly, it was necessary to ensure the anonymity of participants and schools, and to protect their identities (Hammersley & Traianou, 2012; Houghton, Casey, Shaw, & Murphy, 2010; Miles & Huberman, 1994; Walsham, 2006). This was done by applying pseudonyms in all cases. Detailed descriptions of the research participants is normal practice in qualitative research, however in this research, to ensure that the participants would not be identifiable, irrelevant and unnecessary information about the participants was disregarded (e.g., nationality, age, personality and outward appearance). A highly secure wiki platform was chosen, and privacy settings and access closely managed. In order to safeguard confidentiality and privacy, the data were stored in a locked cupboard and not kept longer than necessary. The second ethical issue was avoiding misinterpreting the data. This was done by conducting member checking sessions and explicitly acknowledging bias (sections 4.7 and 4.8).

4.10 Problems encountered

There is always a discrepancy between a research design and its implementation in a real world situation (i.e., classrooms). In this study, the students' examinations and the load of the teachers' teaching responsibilities were the main problems. Some students, especially in Case 2 began the wiki activity late because of their examinations, and in the other two cases, participation decreased during the examination period.

The original intention to conduct four stimulated recall interviews with each teacher proved impractical because of the burden on teachers in the form of departmental meetings, administrative responsibilities, monitoring students' behaviour between classes, preparing workshops, exams, lesson planning and creating student worksheets. Thus, it was not feasible to interview the teachers as regularly as hoped, so the number was reduced to two.

4.11 Summary

The previous sections have presented the research aims and questions, which focused on exploring the process of interaction in wiki -based collaborative writing activities. The research questions were investigated by employing a case study approach, which allowed the use of multiple qualitative data sources to achieve a better understanding. The case study was conducted with three EFL teachers and their classroom students, who were asked to use PBwiki to produce a poster about Kuwait. CMDA was selected amongst other approaches due to its suitability for understanding online behaviours, whilst taking into consideration the technological facets of the wiki platform. This chapter also presented and evaluated several analytical frameworks and the procedures for data analysis. Finally, how the criteria for trustworthiness were met was explained, along with the researcher's bias, ethical considerations and the problems encountered. The following chapter presents the data analysis and how teachers and students interacted in wiki mediated collaborative writing activities using both wiki threaded and text modes.

Chapter 5 Data analysis

5.1 Overview

This chapter presents a cross-case analysis of the three cases. It aims to provide an in-depth description of student-student (S-S) interaction and the way teachers intervened in the wiki activity. The analysis starts by providing some background information about the teachers and their students (sections 5.2 and 5.3). This contextual background information is followed by a summary of the main behaviours observed in each case (section 5.4). After discussing each case summary, a cross-case analysis is presented to bring all the three cases together by highlighting the similarities and differences across the cases (section 5.5). It focuses on how the teachers and students interacted at the three levels, namely organisational, socio-cognitive and socio-affective.

5.2 The teachers

Three EFL teachers participated in the study. Ms. Susan (Case 1) and Ms. Danah (Case 2) volunteered from one school, and Ms. Wesam (Case 3) volunteered from the other school. There were no differences between schools in terms of the context. That is, both schools are government-based schools and are located in a similar Educational area (i.e., Hawally) in Kuwait city. Both schools are equipped with technologies (e.g. data show projector, iPads, computers and computer labs) and Internet connections. All teachers are Non-native speaker of English and they all speak Arabic as a first language and English as a FL. They all had a Bachelor degree in Education (English language teaching) and Ms. Wesam had a Masters in Teaching English to Speaker of Other Languages (TESOL). The teacher background interviews showed that all the teachers had different levels of teaching experience, technological backgrounds and pedagogical beliefs (see Table 5). Ms. Wesam was the oldest teacher with nineteen years teaching experience, whereas Ms. Danah and Ms. Susan had ten and seven years of teaching experience respectively. Out of the three teachers, Ms. Wesam had attended more extensive pedagogical training in relation to how to teach writing and how to use technology.

All the three teachers conducted pair and collaborative writing activities in their classrooms, however, Ms. Susan conducted these activities rarely due to her belief that

they are not important as long as they are not part of the assessment or exams. Out of the other teachers, she expressed her uncertainty about the peer review process and acknowledged that she rarely encouraged students to do so due to her belief that the most accurate answers are given by the teacher. This was evident from her classroom policy, which stated that, “the teacher is always right, if the teacher is wrong then refer to rule 1” (Ms. Susan, background interview). The other two teachers emphasised the importance of teacher monitoring of student interaction in peer review and collaborative writing activities.

In terms of using technology in the classroom, Ms. Wesam and Ms. Susan officially started to use it five and two years ago respectively whereas Ms. Danah had started using it in the academic year 2013. Although Ms. Danah and Ms. Susan used technology, they believed that it can never be a substitute the teacher’s role and it is time consuming when it is used inside the classroom. Ms. Susan said she used some technologies (e.g., iPads, laptops and electronic dictionaries) once a week to present her lesson, whereas Ms. Danah reported occasional use of PowerPoint, CDs, an overhead projector and an iPad. Ms. Wesam declared that she used similar types of technology with some additional technologies such as YouTube videos, Microsoft Word and other educational websites. She reported that technology could create an enjoyable and attractive classroom context where students feel motivated to participate. In relation to teaching writing, Ms. Susan and Ms. Danah never used technology in their teaching practices, whereas Ms. Wesam used Microsoft Word to teach process writing. In relation to wikis, all three teachers were familiar with the most well-known wiki, namely Wikipedia. Whilst Ms. Danah had only heard about it, Ms. Susan and Ms. Wesam used it as a resource for reading and collecting information about a particular topic. Out of the three teachers, Ms. Wesam was familiar with how wikis are created. For example, she defined Wikipedia as, “an electronic encyclopaedia, which has been created by web users” (Ms. Wesam, background interview).

Table 5 gives a summary of the other teachers’ background information such as their training, self-assessment of using technology, their use of technology in teaching writing, their understanding of wikis, their perspectives of collaborative writing and peer review. Detailed discussion of each teacher’s background information is presented in individual case analysis (Appendix S).

Table 5 Teachers' background information

Background information	Case 1 Ms. Susan	Case 2 Ms. Danah	Case 3 Ms. Wesam
Training	Process writing/ International Computer Driving Licence (ICDL) training workshops	Expression and writing, structured, process and genre based writing, teachers' written feedback & students' writing & ICDL training	Mismatch between teacher beliefs and written feedback practice/ process writing conventions/ grammar pedagogy in teaching English/ teaching English with iPads/ the use of electronic squares/ PowerPoint, ICDL & learner- centred classroom with technology.
Self-assessment of computer skills	Self-taught /11 years of computer experience Intermediate level	Self-taught/7 years of computer experience Basic level/needs assistance	Workshops & self-taught /10 years of computer experience Upper intermediate level
Teaching writing & technology	Negative attitudes / does not use technology for teaching writing	Positive if the kinds of technologies are used outside of the classroom Does not use a particular technology inside the classroom regularly Recommends using electronic dictionaries, chatting & Microsoft Word outside of the classroom	Positive /technology can assist traditional methods Useful at the pre-writing and revision stages Inside the class she uses Microsoft Word, transparencies and an overhead projector for the peer review process
Understanding of wikis (e.g., Wikipedia)	Basic knowledge /does not know how it works She uses it as a reading resource	She has only heard about Wikipedia but never used it	Basic knowledge / does not know how it works An editable website She uses it as reading resource
Collaborative writing	Neutral /rarely conducts them since they are not part of assessment or exams	Positive/regularly conducts them but believes that the effective outcomes depends on students' language levels	Positive/ regularly conducts pair and group writing
Peer review	Negative Teacher is the most reliable source of knowledge	Neutral, students should be given a chance. If they do not edit their own and other mistakes, teacher should correct their errors Can be problematic without teacher's monitoring	Positive towards peer review and teacher -whole class review Can be problematic as students may correct each other wrongly Teacher monitoring is emphasized

5.3 The students

The students were in grade twelve in the secondary school stage. Their ages were between 17 and 18 years old. As discussed in Chapter two, all students started learning English and ICT as obligatory subjects in the primary and intermediate stages. Arabic was the first language of all participants and English was a FL.

Since ICT is taught as an obligatory subject in Kuwaiti government schools, it was expected that these students would have fair computer skills. In terms of their information technology (IT) skills, the background questionnaire data suggested that students in Ms. Susan's class (Case 1) had the highest marks in ICT compared with Ms. Danah's (Case 2) and Ms. Wesam's (Case 3) students. As shown in Table 6, there were two students in Ms. Susan's class who had achieved 90% and above in ICT, and two others who had marks above 80% and 70%. In all three cases, the students had been using computers for more than five years. In Case 3, some of Ms. Wesam's students (Laila and Samar) reported 8 and 12 years of computer experience respectively. The time students spend in using computers on a daily basis varied, with some students spending one to three hours per day whilst others reported spending more than three hours. Out of the students in all three cases, Salma, from Ms. Susan's class (Case 1) reported spending the shortest time, rated as less than one hour per day. In Ms. Wesam's class (Case 3), students reported high confidence in using computers. Compared with the other two cases where some students were not confident or somewhat confident in some IT skills, Ms. Wesam's students were highly confident in browsing the Internet, typing in Arabic and in English.

Based on the background questionnaire data, students in the three cases reported their frequent use of computers for different purposes, such as chatting, writing emails, using blogs, Facebook, Twitter, Wikipedia, learning English and watching YouTube videos. Across cases, there were some students who were familiar with the most well-known wiki (i.e., Wikipedia). Salma and Sarah (Case 1, Ms. Susan's class), Amy and Mei (Case 2, Ms. Danah's class) and Laila, Samar and Eman (Case 3, Ms. Wesam's class) reported their familiarity with Wikipedia. Despite the students' familiarity with Wikipedia, none of them had participated in a wiki activity before.

Table 6 Students ICT background information

Case	Students	ICT	Computer experience/ Daily usage	IT skills	Purpose of using a computer
Case 1 (Ms. Susan's class)	Salma	90%	>5 years < 1 hour per day	Highly confident in: Browsing the Internet/ typing in English	Chatting/YouTube reading Wikipedia learning English/ blogging
	Reem	71%	>5 years Between 1 to 3 hours daily	Somewhat confident in: typing in English/ browsing the Internet	Chatting/emails blogging /Facebook Twitter /learning English
	Aseel	88%	>5 years > 3 hours daily	Not confident in: typing in English Highly confident in: browsing the Internet	Chatting /blogging learning English
	Sarah	95%	>5 years > 3 hours daily	Highly confident in: typing in Arabic and English / browsing the Internet	Chatting /emails blogging/Facebook Twitter /reading Wikipedia/ learning English
Case 2 (Ms. Daubah's class)	Fai	92%	>5 years > 3 hours	Highly confident in: using computers, typing in Arabic, browsing the Internet Somewhat confident in: typing in English	Chatting /writing emails/blogging Facebook/Twitter learning English
	Amy	87%	>5 years 1 to 3 hours per day	Somewhat confident in: using computers, typing in Arabic and English Highly confident in: browsing the Internet	Blogging/Facebook Wikipedia/ learning English /YouTube
	Mei	81%	> 5 years 1 to 3 hours per day	Highly confident in: using computers, typing in Arabic and English, browsing the Internet	Chatting /blogging Twitter /Wikipedia
	Mohrah	84%	> 5 years 1to 3 hours per day	Highly confident in: Using computer, typing in Arabic, browsing the Internet Confident in: typing in English	Chatting /writing emails/ Forum Facebook/Twitter learning English
Case 3 (Ms. Wesam's class)	Laila	91%	8 years > 3 hours per day	Confident in: Using computers/typing in Arabic and English/browsing the Internet	Chatting /Facebook /Twitter Wikipedia/ Learning English
	Samar	86%	12 years > 3 hours per day	Highly confident in using computers/typing in English & Arabic, browsing the Internet	Chatting/ writing emails/ Blogging/ Facebook/ Wikipedia /learning English/ watching YouTube
	Sue	81%	> 5 years 1 to 3 hours per day	Confident in using computers/typing in English/Arabic and browsing the internet	Chatting /Emails /Forums /Facebook/ learning English/ watching YouTube
	Eman	77%	> 5 years 1 to 3 hours per day	Highly confident in: Using computers, typing in Arabic/English, and browsing the Internet	Chatting /Twitter Wikipedia/ learning English

The background questionnaires also indicated that students had different English language abilities. As shown in Table 7, Ms. Susan's students got the highest English language marks, with two students having 90% and above. In the other two cases, Ms. Danah's and Ms. Wesam's classes, only one student in each class got 90% and above.

All students declared that they had engaged in group work and collaborative writing activities in their English language classes. The majority of students in Ms. Wesam's and Ms. Susan's classes acknowledged that they regularly engage in group work from three to four times per week, whereas students in Ms. Danah's class reported their engagement in group work as one to two times per week. Their responses to the amount of time of interaction with their teacher and their peers varied in each case. As illustrated in Table 7, students were found to interact most with their peers in Ms. Susan's class (Case 1), whereas in Ms. Danah's class (Case 2) students reported a low level of peer interaction. In Ms. Wesam's class (Case 3) there were mixed responses; only two students (Laila and Samar) reported frequent interaction with their peers.

Across the three cases, students reported mixed self-assessment of their performance and attitudes towards FTF classroom collaborative writing activities. For example, Salma, Reem and Sarah (Case 1), Amy (Case 2), and Laila and Samar (Case 3) assessed themselves as performing excellently when interacting with others in classroom collaborative writing activities. Fai and Mei (Case 2) and Eman (Case 3) reported good performance, whereas Mohrah (Case 2) and Sue (Case 3) reported fair performance. Out of all the students, Aseel (Case 1) reported the lowest performance (i.e., poor performance). As detailed in the table below, students in each case expressed different attitudes towards collaboration in collaborative writing activities. In Ms. Susan's class (Case 1), Salma and Reem were considered as collaborative students, whereas Aseel and Sarah as being non-collaborative and somewhat collaborative respectively. In Ms. Danah's class (Case 2), two students could be described as collaborative (Fai and Amy), whereas the other two were non-collaborative (Mei and Mohrah). In Ms. Wesam's class (Case 3), Laila and Samar were collaborative, whereas Sue and Eman were non-collaborative.

Table 7 Students' collaborative language learning

Cases	Students	English language	Time of interaction		Attitudes towards in-class collaborative writing activities
			Teacher	Peers	
Case 1 (Ms. Susan's class)	Salma	92.3%	>30%	>70%	Collaborative students <ul style="list-style-type: none"> • Collaborative writing develops writing skills • Listening to others, exchanging ideas with others and answering each other's questions are favourable behaviours • They felt neutral about the effectiveness of peer review
	Reem	76.9%	51-70%	<30%	
	Aseel	75%	>30%	30-50%	Non-collaborative student (Aseel) and a mix of collaborative and non-collaborative students (Sarah) <ul style="list-style-type: none"> • Favoured writing individually over collaboratively • Collaborative writing did not develop an individual's writing abilities • Aseel disagreed to listen and or exchange her ideas with her peers and was neutral about asking them questions • Sarah agreed to listen and exchange ideas with others but disagreed about asking questions /she was neutral about taking on board another's suggestions into her text
	Sarah	94%	30-50%	>70%	
Case 2 (Ms. Danah's class)	Fai	93%	51-70%	30-50%	Collaborative students <ul style="list-style-type: none"> • Collaborative writing develops writing skills/ peer review is important/ favoured collaborative over individual writing • Agreed to take on board their peers' comments, to listen carefully to their ideas, to respect each other's suggestions and to ask each other questions • Fai disagreed about taking a leadership role, whereas Amy was neutral
	Amy	82%	>30%	51-70%	
	Mei	78%	< 30	< 30%	Non-collaborative students <ul style="list-style-type: none"> • Mei disagreed that collaborative writing is beneficial, whereas Mohrah was neutral • Mei favoured writing individually, whereas Mohrah was neutral towards writing collaboratively • Both have neutral attitudes towards the effectiveness of peer review, listening to another's ideas and exchanging suggestions • Mei agreed to take a leader role whereas Mohrah disagreed • Mei was neutral about taking on board another's suggestions or respecting their ideas, whereas Mohrah respected other's opinions, but might not incorporate another's suggestions into the text
	Mohrah	73%	51-70%	<30%	

Table 7 Cont. Students' collaborative language learning

Cases	Students	English language	Time of interaction		Attitudes towards in-class collaborative writing activities
			Teacher	Peers	
Case 3 (Ms. Wesam's class)	Laila	93%	>70	51-70%	Collaborative students <ul style="list-style-type: none"> • Collaborative writing develops writing skills/ favoured writing collaboratively over individually • Exchanging ideas with others, respecting each other's opinions and ideas and taking on board all peer feedback are the main collaborative behaviours they agreed to adopt • Whilst Laila did not report any drawbacks to the activity, Samar believed that disagreement and ideas that are distracting are the main drawbacks
	Samar	88%	30-50%	>70	
	Sue	75%	51-70%	<30%	Non-collaborative students <ul style="list-style-type: none"> • Favoured writing individually over collaboratively/ disagreed about the effectiveness of their peer feedback • Sue agreed to respect other's ideas but not necessarily to incorporate them into her text, whereas Eman was neutral towards taking on board other's feedback • Sue was neutral about listening to other's suggestions or exchanging ideas with others, whereas Eman disagreed about listening to other's suggestions and was neutral about exchanging her ideas with others
	Eman	72%	>70%	<30%	

5.4. Online wiki interaction

The following sub-section aims to present a summary of the online wiki interaction process between the teachers and students in each case. It discusses the general behaviours observed that emerged from the in-depth individual case analysis (see Appendix S). Dealing with this as a continuum (see Figure 4), it starts from the least collaborative embedded groups and moves towards the highest collaborative one. The first case is Ms. Susan's embedded group (Case 1), where the teacher adopted a very structured intervention by dividing the work amongst the students. Her students engaged in the activity individually and exhibited a number of non-collaborative behaviours, such as ignoring each other's suggestions, refusing each other's edits, and showing dependency on the teacher. This case is followed by the second case, Ms. Danah's embedded group (Case 2), in which the teacher stepped back at the beginning and only asked students to participate. Although the threaded mode interaction suggests a lack of a *collaborative dialogue* between students, their writing behaviours involved instances of expanding on each other's existing ideas, as well as a willingness to incorporate each other's suggestions into the final wiki text. The last case is Ms. Wesam's embedded group (Case 3), who intervened to encourage collaboration. Her students worked collectively, exhibited features of *collaborative dialogue* in the threaded mode and co-constructed the wiki text together.

Figure 4 S-S wiki interaction continuum

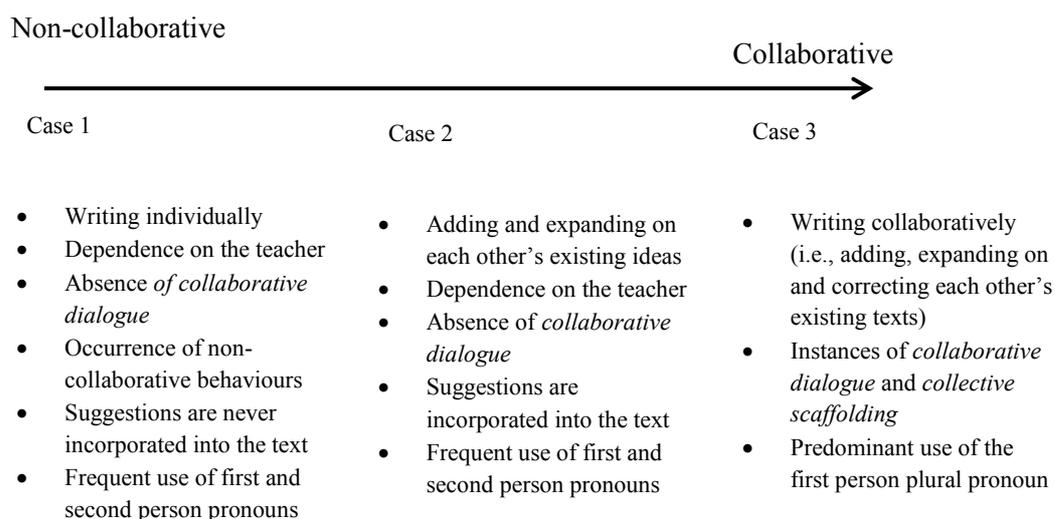


Table 8 provides a summary of how the teacher and students interacted throughout the activity. It gives a general description of the main behaviours observed that occurred in the initial stages of the activity, and more specifically, how teachers intervened and how students interacted together.

Table 8 A summary of the wiki interaction (initial stages)

Cases Phase	Case 1 Ms. Susan's class	Case 2 Ms. Danah's class	Case 3 Ms. Wesam's class
In the initial stage	Teacher interventional behaviours		
	<ul style="list-style-type: none"> • Set rules • Provided external resources (e.g., websites) • Asked students to write directly • Suggested ideas for students 	<ul style="list-style-type: none"> • Stepped back • Asked students to write directly • Did not encourage students to plan together 	<ul style="list-style-type: none"> • Talked in a friendly and social manner about the weather • Set rules • Asked students to plan together • Emphasised discussion before writing • Asked inactive students to join the planning discussion
	S-S interaction		
	<ul style="list-style-type: none"> • Added new ideas and expanded on each other's existing ideas • Did not plan the text together • Sought feedback from the teacher on the ideas they added • Did not correct each other's text 	<ul style="list-style-type: none"> • Added new ideas and expanded on each other's existing ideas • Fai's initiatives to organise the text were not reciprocated by others in the threaded mode • Fai's ideas were incorporated into the wiki page • No instances of editing each other's text • Sought feedback from the teacher on the ideas they added 	<ul style="list-style-type: none"> • Sought task instructions from the teacher • Engaged in a planning discussion • Added ideas to the wiki page based on the collective planning discussion • No instances of editing each other's text or expanding on each other's existing ideas

Table 9 provides a summary of the main behaviours observed that occurred throughout the activity whilst students were writing their wiki pages. This table is followed by a detailed discussion of each case. It discusses in detail the main behaviours observed that were summarised in Tables 8 and 9.

Table 9 A summary of the wiki interaction (during the activity)

Cases Phase	Case 1 Ms. Susan's class	Case 2 Ms. Danah's class	Case 3 Ms. Wesam's class
During the activity	Teacher interventional behaviours		
	<ul style="list-style-type: none"> • Divided the work and asked student to focus on their sub-sections • Suggested content and format changes • Provided individual feedback when students added their sub-sections • Asked inactive students to start working on their sub-sections • Assisted students in writing their sub-sections by sharing external resources (e.g., blogs) • Edited students' texts and drew their attention using the threaded mode • Answered students' language related enquires 	<ul style="list-style-type: none"> • Suggested content and format changes • Answered students' questions • Provided positive feedback • Asked inactive students to add ideas • Edited students' texts • At the end of the activity, she asked students to correct the wiki text (occurred one time only) • Did not interact socially with students 	<ul style="list-style-type: none"> • Modelled editing behaviours • Asked students to expand and elaborate on each other's existing ideas • Redirected questions to other group members • Drew students' attention to their grammatical mistakes • Asked students to discuss their mistakes • Posted questions about students' language use • Posted positive feedback and • Showed appreciation of the group work over individual work
	S-S interaction		
<ul style="list-style-type: none"> • Instances of expanding on each other's existing ideas faded • Wrote individually in a parallel pattern • Sought feedback from the teacher on their individual texts • Sought language related feedback from the teacher • Few instances of seeking and giving feedback between students • Did not incorporate other's feedback into the wiki page • Asked the teacher to edit their texts • Refused each other's edits of the text • Thanking, expressing emotions and offering praise occurred at the end of the activity 	<ul style="list-style-type: none"> • Sought the teacher's feedback and help • Added and expanded on each other's ideas • Absence of discussion between students • Depended on the teacher to edit their texts • One instance of correcting another's existing text occurred at the end by Amy • Did not interact socially with each other 	<ul style="list-style-type: none"> • Added new ideas, expanded on and corrected each other's existing texts • Sought and gave language and content related feedback • Accepted each other's edits • Incorporated each other's suggestions into the wiki text • Corrected each other's grammatical mistakes • Did not edit the content of the wiki text (i.e., ideas) • Expressed their emotions and gratitude for other group members throughout the activity 	

5.4.1 Case 1 Ms. Susan's class

At the beginning of the wiki activity, Ms. Susan dominated the interaction. She intervened in the students' wiki activity by using the front page (the threaded mode) to set some ground rules and to give task instructions (e.g., to work on their group page, finish on time, ask her questions and to alert students that their work would be checked regularly by her). She edited the wiki front page and wrote a reminder about the textbook activity. She also used the front page to provide links to other websites that could assist students in their activities (e.g., an electronic dictionary).

In the initial stages of the activity, students did not work on their wiki page until Ms. Susan intervened and posted a comment asking students to participate. Students participated by adding and expanding on each other's existing ideas to co-construct the meaning of the word *culture*. They started their writing activity without engaging in a discussion in the threaded mode (i.e., *planning talk*). Their writing behaviours were limited to adding and expanding on each other's ideas with no instances of editing or correcting what others had written. They used the threaded discussion to seek the teacher's feedback on their writing.

Although at the beginning of the activity, there were some instances of co-construction of the wiki text (i.e., adding and expanding on each other's existing ideas), Ms. Susan intervened in the students' interaction and explicitly divided the work amongst the students. She assigned to each student a sub-topic to write about and asked them to focus on their individual sections. Instances of expanding on another's existing ideas faded once the teacher divided the work. Students started to work on their individual sub-topics in a parallel mode (i.e., adding new ideas under different sub-sections without expanding or editing what others had written). Furthermore, they used the threaded mode to seek feedback on their individual sub-topics from the teacher rather than from their peers. Ms. Susan provided feedback on each student's sub-section individually. She believed that providing individual feedback on an individual student's work would benefit students in their future exams. Interviews with the students suggested that they favoured division of the work to ensure equality and so they could focus on their individual text. Equality was also the main reason that motivated Ms. Susan to divide the work amongst the students.

There were some instances of inactive students (e.g., Salma) after the work had been divided, and some students seemed to wait for further teacher instructions. Ms. Susan

was active in asking them to participate in the activity. These notifications elicited more student participation; some students started to post comment for the teacher to seek help into how to start their own sections. Other students added their ideas and then sought feedback from the teacher. When providing assistance, Ms. Susan directed students to use external resources such as blogs, electronic dictionaries and websites about the topics, to write their individual sub-sections.

Although students mainly sought feedback from Ms. Susan, there were few instances of collaborative behaviours between peers and these were limited to seeking and giving feedback on what others had written (content and ideas). When feedback was provided by other group members it was never incorporated into the final text. For example, suggestions offered by other peers were never incorporated into the final text. Students refused each other's editing behaviours; when one student corrected a grammatical mistake, it was refused by the other student who wrote the original text. When students refused each other's editing behaviours, Ms. Susan intervened and asked students to focus on their individual parts.

Whilst they were interacting in the activity, students questioned their own language use (e.g., vocabulary and grammar use). Students sought language related feedback mainly from the teacher since they declared that they did not trust their peers' feedback and preferred to receive feedback on language from their teacher who knows better English. Ms. Susan was active in posting language related feedback in response to each student's enquiry. Throughout the activity, students were dependent on the teacher; they rarely edited their own or each other's texts. Ms. Susan dominated editing the students' grammatical mistakes from the initial stages until the end of the activity. According to her, teachers are responsible for helping students to write accurately. On occasion, she used the threaded mode to notify students of her edits on their wiki text, which was then acknowledged by the students.

The students focused on their individual sub-sections and rarely questioned each other's language use, and when they did so, they rarely discussed this collaboratively and mainly referred to the teacher to find the correct answer. When there was ambiguity in the students' discussions of grammatical mistakes, Ms. Susan did not intervene to help students to find a joint answer, but rather intervened mainly to give task instructions, to suggest new ideas and format changes in the wiki page, to answer students' questions and to ask students who were not working on their individual sections to participate.

Social interaction was not evident between the teacher and her students throughout the activity, however Ms. Susan posted positive feedback as a way of encouraging her students. Whilst writing their text, students rarely interacted socially, either with the teacher, or with each other. At the end of the activity however, there were a few instances of social interaction between students, whereby they expressed their positive feelings about working with others, their gratitude for their teacher and other peers, and offered praise for their overall achievement (i.e., the wiki page).

5.4.2 Case 2 Ms. Danah's class

Ms. Danah stepped back at the beginning of the activity as a way of creating a student-centred activity. The first action she performed at the beginning of the activity was posting a comment in the group's page to tell the students to start writing their wiki page. Her instruction was followed by student participation. One student (Fai) started the activity by posting the first comments to share her ideas and to invite others to engage in a *planning talk*. However, her group members were passive in the threaded mode; there were no instances of sharing ideas, suggesting alternatives or even engaging with the proposed ideas. Closer examination of the text mode however, suggests that the students followed what was suggested by their peer at the beginning of the activity and incorporated the ideas into the text. Their main writing behaviours at the beginning of the activity were adding and expanding on each other's ideas, with no instances of editing each other's texts. Ms. Danah was passive in promoting students' online discussion due to her frustrated experience with the asynchronous mode (i.e., delayed time) of interaction.

Whilst the students were interacting in the activity, they used the threaded mode to interact with the teacher rather than their peers. Often when students added or expanded on each other's existing ideas, they sought feedback on their writing from the teacher. Ms. Danah mostly posted positive feedback to avoid embarrassing students in front of each other. She declared that she avoided criticism and negative feedback to encourage the students to work online. She seemed to be concerned about the students' feelings and participation throughout the activity. When she intervened in the students' interaction, she mainly asked students to add ideas to the wiki page, to change the format of the wiki, alerted inactive students that she would check their work, and answered the students' questions. When students did not follow the ideas she suggested, she intervened and reminded them to revise their text based on her suggestions.

In general, student interaction in the threaded mode was limited. There were a few instances of seeking and giving feedback amongst the students. They directed most of their questions to the teacher and rarely engaged with each other in a discussion about their text. In the interview, Mei and Amy declared that they tried to do their best to impress their teacher; Mei in particular was competitive, as she stated that she tried to perform better than her group members. She constantly sought the teacher's feedback because she trusted her teacher's feedback rather than her peers, and wanted to impress her teacher with her work and participation. She mentioned that she still felt that the teacher had the authority in the wiki context, which was why she was responsive to her comments.

Although Ms. Danah asked some students to revise their texts, when she provided feedback on their writing, the text mode analysis showed that she was the only one who edited the wiki text. Throughout the activity, she edited the students' grammatical mistakes rather than encouraging students to do so themselves. She was uncertain about students' willingness and abilities to edit each other's wiki texts. She considered the wiki history record of edits as an opportunity to teach students about their grammatical mistakes.

Whilst writing the wiki text, the main writing behaviours observed of her students was adding and expanding on their own and each other's, existing ideas (hence, co-constructing the wiki text together). However, they rarely corrected each other's texts, either the form or the content. Fai and Amy felt that editing each other's texts was not their job as long as the teacher was present in the wiki. They believed that due to their limited language knowledge, compared with the teacher's knowledge, their friends might refuse their editing. They both seemed sensitive and did not want to hurt each other's feeling or embarrass others in front of the teacher. Mohrah faced difficulties in communicating in English using the threaded mode and did not seem confident in herself when it came to editing another's text, especially when the text was written by those with better language abilities. There was only one instance of correcting another's wiki text, by Amy, and this occurred at the end of the activity when Ms. Danah explicitly asked students to do so.

Ms. Danah focused on encouraging students to write their wiki page, however she rarely intervened to talk socially with the students. Whilst the students were interacting together, the interaction focused on the activity; there were no instances of encouraging each other, greeting, posting emoticons or expressing feelings.

5.4.3 Case 3 Ms. Wesam's class

Ms. Wesam started the activity by adopting a friendly tone by greeting the students and talking socially about the weather. Before encouraging students to engage in the wiki activity, she used the wiki front-page (the threaded mode) to communicate with all groups. She introduced a number of rules to explain the expected behaviours of the students. Some of these rules involved encouraging students to engage in a discussion before writing or editing each other's texts, and focusing on the quality and accuracy of the wiki text rather than the quantity. She also encouraged her students to avoid adding irrelevant ideas that did not elaborate or build on what others had written. At interview, the students indicated that these rules helped them to understand the expected behaviours in the wiki context.

Despite the teacher's efforts to share some rules with the students, they showed dependency on her in the initial stages, seeking task instructions to guide them in how to work in the activity. Rather than explicitly asking students to start writing, Ms. Wesam encouraged students to discuss together how they were going to work on the activity. Then, the students engaged in a discussion of how to organise the work. They took turns posting their ideas, assessing alternatives and providing suggestions for the wiki text. It was only when the students had established a common understanding of how to write the text that they started to incorporate and write ideas on the wiki page. The students' planning discussion was iterative; they discussed the possibilities of adding and changing ideas throughout the activity. Ms. Wesam was very positive in encouraging student collaboration by explicitly asking them to verbalise and articulate their ideas and to make them visible for others when organising the wiki text.

In the initial stages, students followed the collective planning discussion and started to write their wiki page, however their initial writing behaviours involved adding ideas into the wiki text without expanding on or editing each other's existing ideas. Even when there were grammatical mistakes, students rarely discussed them together in the threaded mode or edited them. Ms. Wesam intervened and explicitly asked students to engage in editing and to expand on each other's existing texts. As a way of promoting editing behaviours, she edited students' wiki texts at the beginning of the activity and notified them that she had done so using the threaded mode. She then left the editing behaviours for the students and monitored their editing. Whilst progressing in the activity, the students' writing behaviours moved gradually from adding ideas into the wiki text to expanding on each other's ideas and correcting each other's texts. There was evidence

that they used the threaded discussion to talk about the collaborative wiki text. Also, there were instances of incorporating each other's suggestions into the final text.

Throughout the activity, students interacted with each other using the wiki threaded mode. They discussed the content and the accuracy of their writing. They sought and gave content and language related feedback, elaborated on each other's ideas, sought clarification from others, provided suggestions, agreed on a joint answer and provided clarification. On occasion, students did not respond to each other's enquiries or suggestions. Ms. Wesam was active as she intervened and asked students to consider and reply to other's suggestions. Her interventions were usually followed by multiple responses from students; they started to post their answers and feedback. When students asked her a question, she redirected the question to other group members and asked the group to find a joint answer together. Whilst interacting, there were some inactive students. Ms. Wesam constantly asked them to work and to engage with what others had posted and written. Students declared that the teacher's comments were responsible for pushing them to engage with what others had written or posted.

Whilst students were writing their texts together, they made some grammatical mistakes. Ms. Wesam intervened and drew the students' attention to these grammatical mistakes. She asked students to discuss the grammatical mistakes together to find an answer. When the students were unable to resolve these mistakes correctly, she intervened to either give the correct answer or to offer reassurance to the students about their answers. At the interview, she declared that she withheld her answer if she knew that the answer was within her students' abilities.

Whilst writing the wiki text, the students added, expanded on each other's existing ideas and edited the grammatical errors, rather than editing the content or each other's ideas. They did not change the ideas of another as a way of showing respect. Laila and Samar avoided criticising each other's ideas and tried to be as courteous as possible when commenting on each other's work, because they did not want to hurt their friends' feelings or embarrass them. Most of the students (Laila, Eman and Sue) felt that they were not in a position to criticise each other's work, as long as the teacher was present. Although Laila had good English language abilities, she expressed her uncertainty about what she was suggesting to her friend and preferred to wait for the teacher's feedback and reassurance. Eman expressed her preference for the teacher's feedback over her peers' feedback, since she cared more about the teacher's feedback. Sue and Samar

seemed to lack confidence in their language skills. Furthermore, Sue did not want to disappoint the teacher by editing or commenting wrongly on another's work.

In the process of co-constructing the wiki page, there were high instances of social interaction; students greeted each other, thanked each other, and used a first person plural pronoun (i.e., *we*) to indicate joint responsibility towards the activity. They also expressed their positive feelings and interacted in a friendly way. Students also acknowledged that interacting in the wiki helped them to strengthen their social relationships. Ms. Wesam intervened frequently to offer her appreciation of the group work and to post encouraging words for her students.

5.5 Cross- case analysis

The previous case summary suggests variations in the ways each teacher intervened in the student wiki activity. These teacher behaviours influenced the way the students collaborated together. Table 10 presents a cross-case analysis summary of the three cases. As shown in the table, each teacher intervened differently. Although all students used both the threaded and text modes, their collaboration varied.

Table 10 Cross-case analysis

Cases	Teacher interventional behaviors	S-S interaction	
		Threaded discussion	The wiki text
Case 1 (Ms. Susan's class)	<ul style="list-style-type: none"> → Dividing the work/structuring the activity → Asking inactive students to participate → Sharing external resources → Direct editing + notifying students about edits made and explaining students' grammatical mistakes in a <i>top down manner</i> → Immediate responses to students' enquires → Posting positive feedback → Giving direct instructions (content and format changes) → Using an <i>authoritative tone</i> and no encouragement for group cohesion 	<ul style="list-style-type: none"> → Frequent use of first and second person pronouns → Occurrence of non-collaborative behaviours such as refusal → Interaction was Student (S) -Teacher (T) and T-S → <i>Languaging</i> between S-T, not S-S → Absence of <i>collaborative dialogue</i> → Socio-affective interaction occurred at the end 	<ul style="list-style-type: none"> → Few instances of co-construction of the text at the beginning → Text was constructed with no prior discussion → Text was constructed in a parallel mode → Adding ideas, expanding on one's own existing ideas and correcting one's own existing texts → Refusing other's edits → Ignoring other's suggestions
Case 2 (Ms. Danah's class)	<ul style="list-style-type: none"> → Passive /stepping back → Asking inactive students to participate → Direct editing without questioning students' grammatical mistakes → Immediate responses to student posts → Posting positive feedback → Giving direct instructions (content and format changes) 	<ul style="list-style-type: none"> → Frequent use of first and second person pronouns → Interaction was S-T/T-S → A few instances of seeking and giving feedback → No instances of <i>collaborative dialogue</i> → Absence of non-collaborative behaviours → Absence of socio-affective interaction 	<ul style="list-style-type: none"> → Text was constructed with no prior discussion → Adding ideas, absence of editing own or other's grammatical mistakes or content ideas → Instances of expansion on own and other's existing ideas were observed
Case 3 (Ms. Wesam's class)	<ul style="list-style-type: none"> → Promoting a wiki culture of collaboration → Positioning herself as a co-learner → Promoting <i>collaborative dialogue</i> → Asking students to participate and collaborate → Modelling editing behaviours → Promoting group cohesion → Posting positive feedback 	<ul style="list-style-type: none"> → Predominant use of first person plural pronoun → Instances of S-S collaboration → Instances of <i>collective scaffolding</i> and, <i>collaborative dialogue</i> → Socio-affective interaction occurred throughout the activity 	<ul style="list-style-type: none"> → The text was co-constructed based on collective planning → Suggestions were incorporated into the text → Instances of adding, expanding and correcting own and other's existing texts were predominant

Cross-case analysis of S-S interaction in a wiki-mediated collaborative writing activity suggests that simply asking students to jointly write a collaborative wiki text does not necessarily guarantee their engagement in collaborative behaviours, even with the presence of the teacher. This finding is based on the variations observed across the three cases. As shown in table 10, when Case 1 and Case 2 teachers structured the activity or completely stepped back respectively, their students (e.g., Case 1) exhibited non-collaborative behaviours, such as writing individually, refusing each other's edits, disengaging from each other's contributions, and ignoring each other's contributions, whilst others (Case 2) rarely engaged in a *collaborative dialogue*. Out of the three cases, Case 3 students worked collaboratively; they engaged in a *collaborative dialogue* and co-constructed the wiki text together. A key finding that emerged from the cross-case analysis is that the way teachers intervene could shape the way students interact in wiki-mediated collaborative writing activities. For example, in Case 3, Ms. Wesam intervened in a way that appeared to support S-S collaboration. Therefore, teachers played an important role, not only at the organisational, socio-cognitive and affective levels, but also at the text level; they can either promote or hinder S-S collaboration. These findings are discussed and backed up in detail in the discussion below of the similarities and differences between the three teachers' interventional behaviours, along with how these behaviours influenced the way their students collaborated together. Six main themes were considered in presenting the findings:

- Organising the activity and encouraging engagement
- Promoting mutuality
- Linguaging and collaborative dialogue
- Co-constructing the wiki text
- Authoritative and non-authoritative teachers
- Social relationships

5.5.1 Organisational interaction

Collaboration at this level refers to students' coordination when planning their wiki texts, organising the work, and sharing the responsibilities related to the activity. It refers to their mutual engagement in proposing ideas, structuring their wiki texts, assessing relevant ideas and seeking consensus on their proposed ideas. An analysis of student interaction at this level suggested that student collaboration in Case 1 and 2 tended to be limited due to how the teachers supported them when organising the activity. Out of the three cases, only Case 3 students worked collaboratively to plan the wiki activity. Compared with the other two teachers, Ms. Wesam helped students to

collaborate at this level. The following section explains how Ms. Susan and Ms. Danah hindered student collaboration at this level and how Ms. Wesam supported students to collaborate.

Organising the activity and encouraging engagement

When teachers supported students at the organisational level (i.e., helped the students to plan/organise their work together in the wiki), each teacher exhibited different behaviours, which significantly affected the way the students collaborated at this level. In Case 2, Ms. Danah completely stepped back. Observation of the online wiki interaction suggested that Ms. Danah left organising the activity to the students. Her behaviour did not show any initiatives to organise the students' work or to help them in managing their writing activity. The only action that she performed at the beginning of the activity was posting the first comment in the wiki page of the embedded group, whereby she asked students to start working on their wiki activity (see extract 2). The teacher here used language to *give instructions* (i.e., to start the activity) rather than guiding students in how to work online.

Extract 2 Case 2

Wiki interaction	By	Types of comments/edits
<u>Ms. Danah said at 11:45 p.m. on Mar 12, 2014</u> Girls here in this group you are going to write about food and restaurant, start doing your activity here	T	Giving task instructions

In her stimulated recall interview, Ms. Danah reported that the online activity should be a student-centred activity, and therefore she opted to give students the floor to manage their work. She stated that the teacher should be present in the wiki context. She suggested that there is a relationship between a teacher's positive perception of the activity and students' motivation towards it. Because of this, she tried to show her students that she was present in the wiki. According to her, this would help to show them how much she cared about the activity.

Well I think it is a student-centred activity and I tried to give them the floor. I did not want to tell them do this and that because they should manage this by themselves. I just asked them at the beginning of the activity to participate, because I think a teacher should show her students that she cares about the online activity. If the teacher herself did not remind students to participate they might feel

unmotivated because the teacher did not show that she cared about the activity (Ms. Danah, stimulated recall interview).

A closer look at the online interaction suggested that Ms. Danah's comment elicited students' participation. For example, the following extract showed how her students started the activity.

Extract 3 Case 2

Wiki interaction	By	Types of comments/edits
Ms. Danah said at 11:45 p.m. on Mar 12, 2014 Girls here in this group you are going to write about food and restaurant, start doing your activity here	T	Giving task instructions
Fai wrote at 6:37 p.m. on Mar 16, 2014 <u>food and restaurants in Kuwait</u> Kuwait is a very beautiful country with lots of restaurants that offer very delicious food. When you visit Kuwait, you will find many international cuisines. In our wiki page, you will present these restaurants and the kind of food they offer.	S	Adding new ideas
Fai said at 6:40 p.m. on Mar 16, 2014 Hi girls I really struggle to choose among the restaurants, can we decide and agree on the names of restaurants?? Wait your ideas.	S	Greeting + Seeking peer feedback + Organising the work
Fai said at 11:07 a.m. on Mar 17, 2014 Okay girls I thought about it , I suggest to write about the main international cuisines such as Kuwaiti food, fast food, Lebanese food and Chinese food , any ideas??	S	Suggesting + Organising the work + Seeking peer feedback
→ Amy wrote at 11:15 a.m. on Mar 18, 2014 food and restaurants in Kuwait Kuwait is a very beautiful country with lots of restaurants (...) In our wiki page, you will present these restaurants and the kind of food they offer. → <u>Kuwaiti food :</u> <u>Kuwaiti cuisine is very important part of the Kuwaiti culture. The main meal in Kuwait involves fish, meat and chicken.</u>	S	Expanding on another's existing ideas
Amy wrote at 11:33 a.m. on March 18, 2014 (...) fish, meat and chicken. <u>On any Kuwaiti menu you'll find a collection of delicious dishes, each one uneaque in taste, flavour and arema. And chances are that many of irresistible servings will be prepared according to the most popular style of cooking, the 'tabeekh'(...)</u>	S	Expanding on own existing ideas
→ Mei wrote at 1.21 p.m. on Mar 22, 2014 <u>labanese food:</u> <u>in Kuwait, there are many delicious labanese restaurants where you can enjoy the fresh baked labanese bread and salades. You can find a huge number of labanese restaurants in front of the Aranbic gulf street where you can enjoy the sea view and nice weather. The labanese food involves (...) kebab.</u>	S	Adding new ideas
→ Mohrah wrote at 1:32 p.m. on Mar 25, 2014 <u>Also, there are many other labanese food that you can enjoy such as hummus and araise. You can go and reserve table for you and your family or friends or take your order as a take way and enjoy your meal at home.</u>	S	Expanding on another's existing ideas

In extract 3 Fai, the most collaborative student according to the background questionnaire data, started to write in the wiki page and posted comments on the group page. Fai started the interaction by adding a few sentences on the wiki page; her writing behaviour was followed by a comment whereby she sought assistance and feedback from her group members on what they were going to write on their wiki page. She attempted to engage in collaboration with others by seeking consensus on the outline of their collaborative text. However, other group members did not reciprocate her initiation in the threaded mode. It seems that due to the absence of other's feedback, she posted another comment whereby she articulated her suggestions for others and invited others to engage with what she had suggested. Although other students did not respond to Fai's suggestion by posting a comment in reply, the students' writing behaviours showed incorporation of her ideas. That is, based on Fai's suggestions, Amy started to write about Kuwaiti food and expanded on what Fai had written. Mei and Mohrah also incorporated Fai's suggestions by adding and expanding on a section about '*Lebanese food*' in the wiki text.

Whilst organising the activity, Ms. Danah did not encourage students' *planning talk*. Noticeably, she did not encourage students to discuss or plan together how they were going to proceed in their activity. Evidently, she did not even encourage the others to engage with or reply to Fai's collaborative initiatives in the previous extract. Interviewing Ms. Danah revealed that she did not see the online threaded discussion mode as the most suitable place for planning and discussing the collaborative text. The asynchronous nature of the interaction, the language barriers, and the need to create the product (i.e., wiki text), were the main issues that she mentioned.

I think for them, planning together at this stage in this context can be quite difficult students may feel that it is hard to explain themselves in English and I also feel from my experiences that if they plan in a delayed time mode this will be even worse, because this may delay the process and make students demotivated or you may find them planning and planning without really writing on their wiki page. The purpose is to try to push them towards writing and practise writing publically. Yeah, I do believe that they need to discuss things but this can be in other places ahm, this can be done in the classroom for example (Ms. Danah, stimulated recall interview).

Whilst the students were writing their wiki text collaboratively based on Fai's suggestions in extract 3, Ms. Danah intervened to impose her ideas on the students' text by giving them direct instructions, as shown in the following extract.

Extract 4 Case 2

Wiki interaction	By	Types of comments /edits
Ms. Danah said at 10:19 a.m. on Apr 10, 2014 Start writing about the cultural behaviour and etiquette as I suggested?? the deadline is approaching you need to hurry up	T	Giving task instructions + Managing time
→ Amy wrote at 12:33 p.m. on Apr 10, 2014 <u>When eating in Kuwait there are a couple etiquette rules you must know and follow (...) Some families in Kuwait eat in the floor while other eat on the table. A guest has to respect the cultural behaviour and if she/he invited to a Kuwaiti home where the meal is eaten on the floor, they have to remove their shoes and sit with others and eat.</u>	S	Adding new ideas
→ Ms. Danah said at 4:47 p.m. on Apr 10, 2014 Very good excellent keep working on it, it should have something interesting for the readers	T	Encouraging

In extract 4, the teacher's tone was strengthened by using the imperative *start writing*; she appeared to push students to follow her pedagogical plan, which was not socially grounded or agreed upon with the students. She used an *authoritative tone* and asked students to write about *cultural behaviour and etiquette*, which was suggested by her previously. Out of other group members, Amy was responsive as she added the teacher's ideas into the wiki page. Ms. Danah was positive about Amy's additions and encouraged her to add more ideas. She also drew the students' attention to the wider audience who might be interested in reading the wiki page.

Unlike Ms. Danah, Ms. Susan (Case 1) and Ms. Wesam (Case 3) supported students by using the wiki front page (the threaded mode) to communicate with their students. In these two cases, the wiki activity started with *teacher-fronted talk* whereby both teachers posted explicit task instructions for their students. For example, Ms Susan intervened in the students' wiki activity by editing the wiki front page and writing a reminder about the textbook activity (see screenshot 3). She also used the front page to provide links to other websites that could assist students in their activities (e.g., an electronic dictionary and Wikipedia). In addition, she utilised the wiki-threaded discussion of that front page to communicate with all the groups (extract 5).

Screenshot 3 Case 1 wiki front page



Extract 5 Case 1

Wiki interaction	By	Types of comments /edits
<p>Ms. Susan said at 2.42 p.m. on Mar 7, 2014</p> <p>Please all groups should work on its page and I want you to finish the activity on time I will check what you are doing from time to time regularly and ask me if you need any assistance you can ask me in the class as well</p>	T	Giving task instructions + Managing time
<p>Ms. Susan said at 6.47 p.m. on Mar 11, 2014</p> <p>Girls try to work on electronic dictionary it is going to help you in finding word meaning it is really easy and also use the website I want you to read these websites and collect information do not copy and paste be creative write in your own style girls and if you have other website suggest that to your group member they will benefit from that.</p>	T	Giving task instructions + Promoting sharing of resources
<p>Ms. Susan said at 6.59 p.m. on Mar 11, 2014</p> <p>Start your wiki page please everyone should write good sentences. The task asks you to produce a poster about your country it should be easy for you do your best!! please girls participate at least write a sentence per day I will check your writing</p>	T	Giving task instructions + Promoting participation

Ms. Susan's posts in extract 5 involved some *ground rules* that guided the students in how to work in the wiki. These rules directed the students to work on their groups' pages, to finish on time and alerted students to the fact that she would check their work regularly. She also directed them to use external links that she added to the wiki front page to assist them in writing their wiki text (screenshot 3). She recommended the online dictionary for checking the meaning of words, whereas websites were suggested as a resource for reading. She set some common writing rules for all groups, such as being creative, avoiding plagiarism (i.e., copy and paste), as well as writing a sentence

per day. She also encouraged students to ask her questions when they needed assistance. Interviewing her showed that her familiarity with her students' preferences and her concern for getting correct answers led her to encourage them to post questions for her rather than for their peers.

I know that some of girls prefer to receive an answer from me that is why I told them that they could post questions for me ahm. It would be really good if they asked their peers but at the end, the most important thing is to get the correct answer and I think that they will get it from me (...) you know there are many weak students in my class and they may give incorrect answers to the others (Ms. Susan, stimulated recall interview).

Similar to Ms. Danah's class (Case 2), students in Ms. Susan's class (Case 1) did not engage in *planning talk* to organise their activity. They started the wiki activity by directly writing into the wiki page (adding and expanding on each other's ideas) and showing dependency on the teacher in receiving feedback on what they had written. This is illustrated in the following extract.

Extract 6 Case 1

Wiki interaction	By	Types of comments/edits
Ms. Susan said at 6:21 p.m. on Mar 7, 2014 Girls start writing your sections??? Why no one has participated yet it is your job??	T	Giving task instructions/Promoting participation
Salma wrote at 6:33 p.m. on Mar 7, 2014 <u>Kuwaiti culture is very much related to Islamic culture because Kuwait is Islamic country. People follows Islamic rules and there are many norms in the society.</u>	S	Adding new ideas
Salma said at 6:35 p.m. on Mar 7, 2014 Teacher I wrote a sentence about our topic the culture of Kuwait, is it nice?	S	Acknowledging + Seeking teacher feedback
→ Ms. Susan said at 12:10 p.m. on Mar 8, 2014 Yes it is a good start but I think it would be better to start by defining the meaning of culture first	T	Giving feedback
Aseel wrote at 12:17 a.m. on Mar 8, 2014 <u>Kuwait culture is similar to other middl east countries and people are stell follwoing these norms and share many behaviours.</u>	S	Expanding on another's existing ideas
Sarah wrote at 9:54 a.m. on Mar 9, 2014 <u>Culture as a word means the norms and behaviours that people share in a specific society. Every society has its own cultural norms and behaviours. People in every countires belive that culture represents their identitu and history. These norms and behaviours have transfered from one generation to the other.</u>	S	Expanding on another's existing ideas
Sarah said at 9:56 a.m. on Mar 9, 2014 Teacher me too I participate ☺ your suggestion to write about the meaning of culture is really great, I tried to think about its meaning and came up with amazing definition from my own understanding of the word , hope you read it and tell me what do you think ??	S	Acknowledging + Seeking teacher feedback
→ Ms. Susan said at 10:15 a.m. on Mar 9, 2014 Excellent Sarah, I liked the way that you define culture it is really a very comprehensive definition and the most interesting thing that you came up with your own definition from your understanding, good!! I suggest you to do the following :read your definition again try to think whether the points are related together try to avoid your spelling mistakes this can be done by using the dictionary as we do in the class check the spelling of the word before writing it in the wiki I will give you chance to do these things and will check your editing	T	Encouraging + Giving feedback + Giving task instructions+ Promoting editing behaviours
Salma wrote at 3:37 p.m. on Mar 9, 2014 <u>(...) one of the most well known cultural behaviour in Kuwait is the greeting. Greeting in Kuwait is different and people took this habit from Islamic rules. The greeting starts with the word "Aslamo eli kom" which is Islamic greeting that our prophet Mohamad peace be upon him advise us to use.</u>	S	Expanding on another's existing ideas

Similar to Ms. Danah, Ms. Susan posted the first comment, asking students to write directly into their wiki page. After her comments, Salma added a new idea to the wiki page and posted a comment to seek feedback from the teacher. Ms. Susan replied to Salma's post and directed her to start the wiki page by defining the word *culture*.

Although there were no collaborative behaviours between students in the threaded mode, Aseel collaboratively engaged with Salma's writing and expanded it. Working as a group, Sarah considered the teacher's feedback to Salma and further expanded on Salma's and Aseel's writing by adding the meaning of *culture*. Similar to Salma, she then directed a seeking feedback comment to Ms. Susan, who was active in responding and provided constructive feedback. As shown in her post, she encouraged the students and gave positive feedback to Sarah, asking her to revise her definition. She asked her to check the coherence of her ideas and the spelling of what she wrote. Rather than promoting S-S collaboration, she encouraged her to use a dictionary and to edit her text. This sequence between Sarah and the teacher was followed by Salma's collaborative writing behaviours; she expanded on what Sarah wrote by writing about a cultural behaviour (i.e., *greetings*).

Although the students were collaboratively co-constructing the text together in the form of *adding and expanding on each other's ideas* (as shown in the previous extract), Ms. Susan intervened in the students' interactions later on and suggested ways of organising the work as explained in the following extract.

Extract 7 Case 1

Wiki interaction	By	Types of comments/edits
<u>Ms. Susan said at 9.00 p.m. on Mar 11, 2014</u> Girls you can divide the work if you feel that you are not sure about what you are supposed to write about. If you want discuss that and then start writing your section	T	Giving task instructions
→ <u>Reem said at 9. 32 p.m. on Mar 11, 2014</u> It is a great idea teacher I will write about Kuwaiti traditional clothes what do you think do you think it is going to be interesting for other reader to know about the traditional clothes of Kuwaiti people?	S	Acknowledging + Seeking teacher feedback on planning
→ <u>Ms. Susan said at 9.43 a.m. on Mar 12, 2014</u> Sure Reem but do not forget to attach picture it is going to be nice	T	Giving feedback + Giving task instructions
→ <u>Sarah said at 7:03 p.m. on Mar 12,2014</u> To me I would write about Kuwaiti traditions in wedding I will be so happy to write about our culture , shall I start miss ??	S	Acknowledging + Expressing emotions + Seeking teacher permission
→ <u>Ms. Susan said at 7:13 p.m. on Mar 12, 2014</u> Yes good idea start planning Sarah, I am sure you will be creative	T	Giving feedback+ Giving task instructions + Encouraging
<u>Ms.iss Susan said at 11.53 p.m. on Mar 12, 2014</u> Only Sarah and Reem have told me what they are going to write about where are the rest of students can you tell me your ideas ?	T	Promoting participation+ eliciting ideas
<u>Ms. Susan said at 9.13 p.m. on Mar 14, 2014</u> Hello group 2 : here what you are going to do : Reem: write about the national dress of Kuwaiti men and Women Aseel: write about Kuwaiti religious holiday and celebrations such as Eid Sarah : write about kuwaiti traditional marriage Salma: write the conclusion about how Islam affects our culture in general mention briefly what all other girls have talked about (clothes,marriage and Eid) Get to work and good luck darling	T	Giving task instructions

The first suggestion for organising the work was the division of the work. Ms. Susan gave explicit task instructions and encouraged students to discuss what everyone was going to write about. This post was followed by two posts in reply from Reem and Sarah, who acknowledged the teacher's suggestion and sought content feedback on their ideas. They both showed dependency on the teacher; this was evident from Reem's seeking feedback on planning comment and Sarah's comment whereby she sought the teacher's permission to start writing. Ms. Susan provided individual feedback to both students; she encouraged both students and directed Sarah to plan her text individually. The lack of responses from the others (i.e., Aseel and Salma) led Ms. Susan to post a comment to question their ideas. However, Aseel and Salma remained passive and did not reply to Ms. Susan's post. The absence of response was followed by Ms. Susan's

post, whereby she provided explicit task instructions by dividing the work amongst the students.

Ms. Susan clarified in the interview that she intentionally structured the students' work due to her belief that every student has to have a responsibility. Organising the students' work was seen as a way of setting boundaries and increasing participation. She seemed unsure about the students' abilities to organise the work, as she declared that some students would always wait for her instructions, and accordingly, she assumed the authority and structured the activity for them.

Oh yeah, to set some boarders, to set some guidelines, because if they do not assign the sub-tasks to themselves they might actually fight over the work (...) so rather than helping each other, some of them may hang the work or take over the work for themselves. That is why I am the teacher, I have to make it clear who should do what (...) I need to post commands; this will help the students to know exactly what I want them to do instead of leaving them to work in the wrong way. I know there are some girls who are always waiting for me to tell them what to do and what not to do (Ms. Susan, stimulated recall interviews).

When interviewing students, some students declared that they preferred to receive explicit task instructions from the teacher rather than agreeing amongst themselves. For example, Salma and Reem liked the way Ms. Susan intervened in their activity because this helped them to understand what they needed to do. Salma also reported that this ensured fairness whilst working in the online context.

I like this (i.e., the division of the work) because if the teacher did not do that, we would be wondering how to start and who should do what (...) this helped us to understand our responsibilities (...) If the teacher had not been there, we would not have been able to manage the whole project alone (...). There would have been unfair distribution of work (Salma).

(...) At the beginning I was struggling to start but she distributed the work amongst us, which was really better because everyone knew what to write about and focused on her paragraph (Reem).

Ms. Susan's instructions about the division of the work resulted in a different writing pattern. In contrast to extract 6 where students were co-constructing the text (*adding and expanding on each other's existing ideas*), they started to add their ideas to the wiki individually in a *parallel mode* (i.e., every student started to work on her sub-section and hence worked cooperatively rather than collaboratively). For example, in the following

extract, Sarah and Reem both added new ideas under two different sub-topics that were assigned to them by the teacher namely, *marriage in Kuwait* and the *national dress of Kuwaiti people* respectively. There was no threaded mode discussion about each other's writing, but as seen in extracts 6 and 7 the interaction was between S-T; the students mainly used the threaded discussion to seek feedback from their teacher on what they added or what they were going to write about.

Extract 8 Case 1

Wiki interaction	By	Types comments/edits
<p><u>Sarah wrote at 9:34 p.m. on Mar 17, 2014</u> <u>Marriage in Kuwait:</u> Families always treated marriage as an important occasion. Lots of money is usually spends on it. in the past, marriage is a means of <u>strengthening bonds between families of similar social and financial levels and having similar creed.</u></p>	S	Adding new ideas
<p><u>Reem wrote at 6:33 p.m. on Mar 19, 2014</u> <u>National address (sic) of Kuwaiti men and women:</u> Most Kuwaiti men wear a dishdasha which is a long sleeved floor length with a button down opening to the waist. Light materials in white or ivory are typical in summer , while heavier choices in gray and blue are usually wear in winter. Long or short white cotton pants are worn under the dishdasha. The long side pockets suffiecient for their wallet, mobile and mesbah and so forth.</p>	S	Adding new ideas

Similar to Ms. Susan (Case 1), Ms. Wesam (Case 3) started the activity by posting a number of *ground rules* on the wiki front page (threaded mode) to communicate with all groups. In contrast to the other two teachers, she did not ask students to write directly into their wiki page but rather encouraged them to discuss how they would write their wiki text. The following extract illustrates her interventional behaviours.

Extract 9 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Ms. Wesam said at 2:11 p.m. on Mar 15, 2014</u> It is really too early to start writing your poster so try to discuss first, discussion is really useful for you girls to organise your ideas and thoughts also to plan your text well</p>	T	Giving task instructions
<p><u>Ms. Wesam said at 9:11 p.m. on Mar 18, 2014</u> I can see that there are some students in some groups adding junk of texts as if they wanted to finish the writing task. It cannot be done like this my lovely students, it is a group work. you need first to discuss and read what others have written and also build on that don't just start over and over this will make the ideas in your wiki page unconnected which will result in incoherent text.</p>	T	Giving task instructions + Promoting group cohesion
<p><u>Ms. Wesam said at 9:46 p.m. on Mar 18, 2014</u> I know that some groups are about to start writing their wiki page , I think here in the wiki you can delete and add easily but we need to remember that it is going to be a group work so please consider other's work when you delete or add on it. I want you to feel free to justify your own deletion but don't be rude when dealing with others treat them as nicely as you can put yourself in their place and try to deal with their writing as if they are your own.</p>	T	Giving task instructions + Promoting group cohesion

When Ms. Wesam noticed that some students in some groups started directly by writing their wiki text, she intervened to emphasise discussion first. As shown in the extract, Ms. Wesam guided the students towards certain behaviours using a friendly tone, by using *my lovely students*. More specifically, she encouraged them to discuss their ideas with others, to respect each other's writing, to avoid deletions without discussion, and was concerned more about the quality not the quantity of writing. Furthermore, she emphasised working as a group and writing the wiki text by reading each other's ideas and building on them to produce a coherent text. She advised students to behave nicely with each other's writing and to be courteous when reading and editing what others had written. Ms. Wesam found the front page a useful place to post comments for the whole group. She elaborated on her behaviours in the following interview quote.

I was trying to show students that I am there ahm, or you know I wanted to be friendly in this informal online context. In the classroom I always do the same, you know. If they start their activity, I remind them about what they have to do ahm, not what they have to do but you know ahm, how they should behave with each other. I mean the expectations, because I did not want to remind them every time I logged in to the wiki. So I found the front page really useful, because whenever they login, they can see these instructions and you know this will help them to work better with each other (Ms. Wesam, stimulated recall interview).

Student interview data suggests that students felt they needed some guidance from the teacher to know what was expected from them in the wiki context. They appreciated the front-page posts since they guided them towards what they needed to do. For example, Samar understood that deleting another's work without discussion is unacceptable, whereas Sue acknowledged that she appreciated reading and commenting on each other's work in the wiki. Both declared that it is the teacher's responsibility to explain the acceptable and unacceptable behaviours rather than their peers.

At the beginning of the project the teacher told us what to do and what not to do. This was really helpful; from her post I understood what she wanted us to do, for example we should not delete each other's texts without discussing this with others. This was really helpful (Samar).

Without her (i.e., the teacher) we would not have been able to know what was acceptable and unacceptable in the wiki. I mean she posted comments to tell us to respect each other, to read each other's work and to post comments if possible. This was really useful for me because this encouraged me to do things that the teacher would like us to do. I cannot imagine one of my friends telling us how to work (Sue).

Some students such as Laila acknowledged that because the teacher guided them towards discussing their ideas with others, she tended to talk to her friends first before editing another's ideas.

If I felt that her ideas (she is referring to one of her group members) were not connected to the text. I would first tell her in the comment section in a way that helped her think again about what she had written; as the teacher told us, I would talk to her first (Laila).

In contrast to Ms. Susan's and Ms. Danah's students (i.e., Case 1 and 2), students in Ms. Wesam's class exhibited a high level of collaborative behaviours in the threaded mode. Ms. Wesam played an important role in guiding students to collaborate when organising their work. The following extract explains how she supported student collaboration.

Extract 10 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Laila said at 12:35 a.m. on Mar 8, 2014</u> Hi teacher I am so happy to work online and talk to you here so exciting just wanted to ask you what shall we do next, discuss or planning writing first or it can be both of them right?</p>	S	Greeting + Expressing emotions + Seeking task instructions from the teacher
<p>→ <u>Ms. Wesam said at 12:58 p.m. on Mar 9, 2014</u> Laila you have to discuss your ideas with your group first and then write, remember you are doing a group activity so work with others</p>	T	Giving task instructions + Promoting group cohesion
<p>→ <u>Laila said at 1:17 p.m. on Mar 9, 2014</u> Okay teacher many thanks for posting in our page</p>	S	Acknowledging + Thanking

Out of the other group members, Laila who had the highest language abilities, started the activity by posting the first comment, which was directed at the teacher. She expressed her positive feelings towards working in the online context, then sought task instructions from the teacher on whether they had to write, discuss or both. Rather than considering the activity as an individual endeavour, Laila asked what they had to do as a group by using the first person plural pronoun ‘we’. Her comment was followed by Ms. Wesam’s reply whereby she promoted the group cohesion when she directed Laila towards discussing her ideas with other group members, whilst keeping in mind that it was a group rather than an individual activity.

Following the previous interaction between Laila and Ms. Wesam, students engaged in a high level of collaboration by initiating the activity, organising and planning their text together, seeking and giving feedback to their peers on the suggested ideas (see extract 11).

Extract 11 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Laila said at 1:33 p.m. on Mar 9, 2014</u> hi my group I think our task is to write about Kuwaiti culture, I suggest writing first about three main parts and mentioning that in the introduction. I suggest to write about culture in relationships between men and women, culture ins social life (writing about wedding, man gathering for example) and culture in women life. I think it is gonna be interesting to share our ideas her and learn from others waiting you my nice group.</p>	S	Greeting + Organising the work + Suggesting + Expressing emotions + Seeking peer feedback
<p>→ <u>Samar said at 1:47 p.m. on Mar 9, 2014</u> Laila I think we also need to think about different behaviours and norms that all Kuwaiti people share and how these are different from other non-Arabic countries what do you think girls?</p>	S	Organising the work + Elaborating + Seeking peer feedback
<p>→ <u>Sue said at 10:16 a.m. on Mar 10, 2014</u> I don't think that it will be important to write about the differences between Kuwaiti cultural norms and other non-Arabic countered I would agree with Laila I think she suggested interesting points</p>	S	Organising the work+ Giving feedback + Agreeing
<p><u>Ms. Wesam said at 11:51 a.m. on Mar 10, 2014</u> very good you are a good group excellent girls good planning carry on planning your wiki project</p>	T	Encouraging + Giving task instructions

As illustrated in the extract, before writing on their wiki page, students engaged collaboratively in a discussion over the creation of their text (i.e., *planning talk*). They engaged with each other; taking turns to post their opinions of Laila's proposed outline. Three students were active: Laila, Samar and Sue. Laila showed an explicit effort in trying to share her ideas to construct common knowledge about the content of the collaborative text, by suggesting the structure of the wiki page and by expressing her positive feelings about working with the others. She appeared to be willing to collaborate, since not only did she make her ideas visible for others, but she also invited others to elaborate on and contribute to her suggestions. Behaving collaboratively as a group, Laila's suggestion was taken into consideration by her group members, who replied to her. Samar, for example, elaborated on what Laila suggested and sought feedback on her idea from the others, by eliciting their ideas. In responding to these posts, Sue engaged critically with Samar's idea and expressed her opinion of it. She seemed to assess the relevance of the proposed ideas and explicitly agreed on Laila's idea rather than on Samar's. Ms. Wesam was active in monitoring students' planning in the initial stage of the activity. In contrast to Ms. Susan, she did not intervene to tell students what to write about, but rather as shown in the previous extract, she posted a

comment to encourage them to carry on planning their collaborative text together. She encouraged students to work as a group and this reflected her appreciation of working together. She further expressed this in her interview.

I wanted them to feel that they are part of the group, to join the others and to feel that I prefer they work as a group rather than individually (Ms. Wesam, stimulated recall interview).

Noticeably, in the previous extract, not all students joined the planning discussion that was initiated by Laila. Eman, for example, did not post any comment in reply to Laila's proposed ideas. Ms. Wesam was active; she called on the students who were not joining the activity and encouraged their participation.

Extract 12 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Ms. Wesam said at 2:17 p.m. on Mar 15, 2014</u> Where are the rest of the girls, it is a group work I can see that Eman did not participate at all in the discussion, could you please join the discussion it is a group work not an individual work</p>	T	Promoting participation + Promoting group cohesion
<p>→ <u>Eman said at 11:19 a.m. on Mar 17, 2014</u> I agree with you Sue and Laila, we need to focus on Kuwaiti culture only rather than compare it to other, the task is asking us about Kuwaiti culture not comparing it with other non-Arabic culture</p>	S	Agreeing + Organising the work + Giving feedback
<p>→ <u>Eman said at 11:24 a.m. on Mar 17, 2014</u> Miss I shared my planning idea with the rest</p>	S	Acknowledging

As presented in extract 12, Ms. Wesam told Eman to participate; she posted a comment for her as a way of promoting her mutual participation in planning the text with her group members. This instruction was considered by Eman, who replied after a while. She posted a comment in reply to Laila's proposed ideas in extract 11. Her comment reflected her mutual engagement with what others had discussed. Her reply suggested that she had read the other's posts in extract 11, and accordingly expressed her agreement with Laila's and Sue's ideas rather than Samar's idea. She justified her agreement by referring back to the focus of the activity, which asked students to write about Kuwaiti culture, rather than comparing it with other cultures. Following this, Eman posted another comment informing the teacher about her participation. Ms. Wesam did not post any other follow up comment in response to Eman.

In all the three cases, teachers asked the inactive students to participate and to join the activity. Similar to Ms. Wesam in the previous extract, Ms. Susan was asking Salma and Aseel, who were passive when she divided the work, to participate and to join the activity. The following extract presents Ms. Susan's behaviour.

Extract 13 Case 1

Wiki interaction	By	Types of comments/edits
Ms. Susan said at 5:59 p.m. on Mar 20, 2014 Salma and Aseel where are you please start your sections, your friends have started	T	Promoting participation
Aseel wrote at 7:18 p.m. on Mar 20, 2014 <u>Formal celebrations in Kuwait:</u> <u>In Kuwait, people has two major religious holidays that are cause for celebration among all others. (...) Kuwaiti people also went to Eid prayer at the morning at 6 o'clock and pray in the mosque. They exchange kissing and greeting and also congratulations for Eid coming (...)</u>	S	Adding new ideas
→ Aseel said at 7:33 p.m. on Mar 20, 2014 Sorry Miss I was busy with exams here we go my section is added. plz my sweet friend read it and give it a comment	S	Apologising + Other talk + Seeking peers feedback
→ Salma said at 8:52 p.m. on Mar 24, 2014 Miss Susan my mind is empty I don't have more information I feel that my friends has written what I was about to write help plz suggest ideas.	S	Seeking teacher help
→ Ms. Susan said at 12:57 p.m. on Mar 25, 2014 Salma check out Mark's blog:248am.com he has a section in the side called events check it out and join the work and add on your friend's sections	T	Giving help + Providing resources + Giving task instructions

Ms. Susan's comments to Salma and Aseel seemed to encourage them to work on their sub-section. Similar to her group members (see extract 8), Aseel added new ideas for her sub-section *formal celebrations in Kuwait*. Following Aseel's participation is Salma's comment whereby she sought help from the teacher; it seemed that Salma struggled to join the activity because the teacher assigned her writing and summarising what others had written (see extract 7). Rather than promoting S-S collaboration, Ms. Susan shared an online resource (i.e., a blog) to help Salma in writing her own section. At interview, Ms. Susan (Case 1) and Ms. Danah (Case 2) both highlighted the importance of notifying inactive students that they need to participate, to ensure equality. They were both concerned about ensuring that all students worked and participated in the wiki activity.

I wanted them to do their job; it is unfair that some students work whilst others do not (...) in my post, by calling students by their names I really wanted them to write (...) If I did not mention their names they would be observing without writing. I know some of them are shy about writing, but telling them that I know and realise that they are not doing their jobs will push them to work. I know that they will consider my posts because I am their teacher after all (Ms. Susan, stimulated recall interview).

I think the teacher has to actively monitor who is working and who is not, because some students may feel that if the teacher is not monitoring the work, it is not necessary to join the group work, as long as there are other people who are doing the job (...) this is not the purpose of using a wiki. I think they all need to participate and write the wiki text (Ms. Danah, stimulated recall interview).

These notifications were considered by students as an effective way of helping them towards working online with others. This was mentioned in some of the students' interviews. Laila and Sue (Case 3), and Mei (Case 2) for instance, felt that because of the teachers' notifications, some students participated. Mei was concerned about her teacher and considered her as a figure of authority. She worked because she wanted to present herself as a good student in front of the teacher.

Some of them were lazy, you know, they did not even care to work, but when the teacher mentioned their name they started working, writing anything or even inserting pictures (Laila, Case 3).

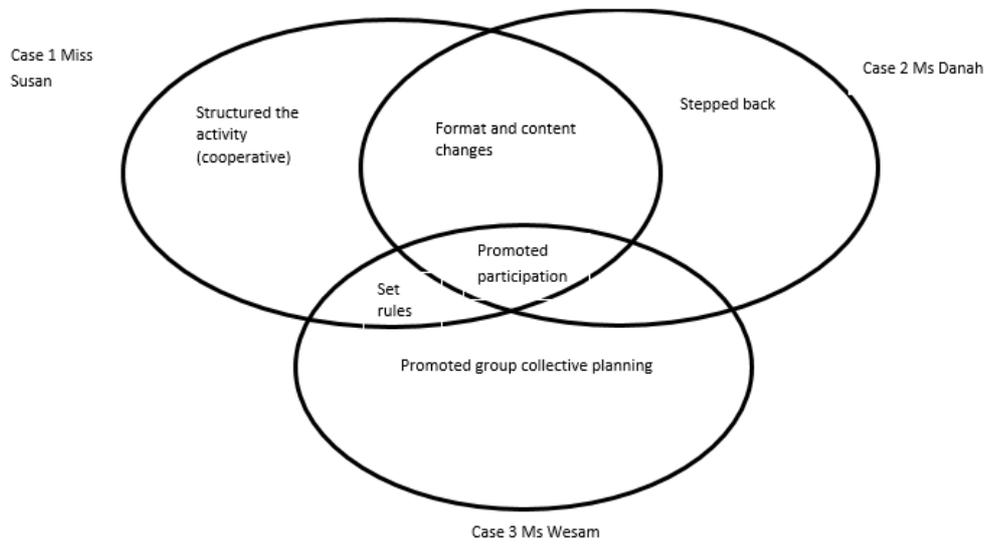
One of the girls in my group did not work at all until the teacher told her to work (Sue, Case 3).

I was busy for some days and did not add anything in the wiki, but because she mentioned my name, I added some sentences and told her that I had participated. She remains our teacher, even if we are working in the wiki, not in the class. That is why I felt worried, if she thought that I was not working as well as my friends (Mei, Case 2).

Figure 5 summarises the main teacher behaviours observed at the organisational level. All three teachers were notifying inactive students that they needed to participate, which seemed to promote the level of student participation and decrease instances of *social loafers* and *free riders*. Out of the three teachers, Ms. Wesam impose her ideas, whether these were related to wiki content or format, as the other two teachers did. Ms. Danah stepped back and did not set any rules for her students, whereas Ms. Susan and Ms. Wesam used the wiki front page to set some ground rules. Ms. Danah did not encourage student collaboration at the organisational level, whereas Ms. Susan structured the

activity in a cooperative manner. In contrast, Ms. Wesam encouraged *collective planning* and therefore encouraged student collaboration at the organisational level.

Figure 5 Organisational teachers' support



5.5.2 Socio-cognitive interaction

Collaboration at this level reflects students' mutual cognitive engagement with others, offering contributions, sharing content and language knowledge, challenging each other's contributions to build greater understanding, seeking and giving language related feedback, and helping group members. Similar to the organisational interaction, the level of student collaboration in Cases 1 and 2 at the socio-cognitive level was limited compared with Case 3, where instances of *collective scaffolding* and *collaborative dialogue* were observed. The main findings suggested that when teachers intervened to reply to students' enquiries (e.g., providing an immediate response), the level of S-S collaboration was not evident. In contrast, when teachers directed students to engage mutually with each other to find a joint answer, S-S collaboration occurred. The following sub-sections illustrate how teachers intervened at this level and its effect on S-S collaboration.

5.5.2.1 Promoting mutuality

There were some similarities observed in the way Ms. Susan (Case1) and Ms. Danah (Case 2) intervened in student collaboration at this level, which may have resulted in a low level of collaboration amongst their students. During the threaded discussion, both teachers intervened to simply reply to students' seeking feedback wiki threads, or to ask students to add their suggested ideas onto the wiki page. For example, when students in Ms. Susan's class started to write their individual sub-topics in the wiki page, they sought feedback from the teacher (see the following extract).

Extract 14 Case 1

Wiki interaction	By	Types comments/edits
<p>Sarah wrote at 9:34 p.m. on Mar 17, 2014 <u>Marriage in Kuwait:</u> Families always treated marriage as an important occasion. Lots of money is usually spends on it. in the past, marriage is a means of strengthening bonds between families of similar social and financial levels and having similar creed.</p>	S	Adding new ideas
<p>Sarah said at 9:35 p.m. on Mar 17, 2014 Teacher I added my section, can you tell me your opinion? let me know it I did not add pic I will do latter on</p>	S	Seeking teacher feedback
<p>→ Ms. Susan said at 3:53 p.m. on Mar 18, 2014 Very good it is really a good start from you Sarah, however, if the wiki page is full of written information without picture this will be boring and unattractive for the reader but as you said leave it till the end and now focus on writing as much as you can and as accurate as possible (...)</p>	T	Encouraging + Giving feedback + Giving task instructions
<p>Reem wrote at 6:33 p.m. on Mar 19, 2014 <u>National address of Kuwaiti men and women:</u> Most Kuwaiti men wear a dishdasha which is a long- sleeved floor length with a button down opening to the waist. Light materials in white or ivory are typical in summer , while heavier choices in gray and blue are usually wear in winter. Long or short white cotton pants are worn under the dishdasha. The long side pockets suffiecient for their wallet, mobile and mesbah and so forth.</p>	S	Adding new ideas
<p>Reem said at 6:41 p.m. on Mar 19, 2014 Miss I started my part which is the Kuwaiti men and women clothes but it is still uncomplete (sic) I will read more and add more information check that plz and tell me about it</p>	S	Seeking teacher feedback
<p>→ Ms. Susan said at 5:55 p.m. Mar 20, 2014 Very good Reem I can see that you have added and started your section keep it up and I hope that your friends give you further comment. Your section needs more details so try to expand on your ideas. The only way that you can do so is to read more about your section collect information and summarize them in your own style and go ahead and edit your section. But really excellent Reem</p>	T	Encouraging + Giving feedback + Promoting editing behaviours + Giving task instructions

The interaction was mainly student initiated, whereby students directed their comments to the teacher rather than to their peers. Ms. Susan was responsive; she provided individual feedback to each student. In her feedback, she encouraged both students and emphasised writing an accurate text. She advised Reem to expand her ideas by collecting more information about the topic, summarising it and writing it in her own style. Although Ms. Susan seemed to encourage S-S collaboration by implicitly encouraging other students to give feedback on Reem's writing, this encouragement was not considered by the other students. There were no comments in reply to what Reem had written.

From the previous extract, it is apparent that the interaction was structured between the teacher and students rather than between student-student (see also extract 6). Ms. Susan did not encourage S-S collaboration, but rather she was responsive to students' individual questions and commented on each student's work individually. At the interview, she declared that she did that intentionally to help students to find the correct answers, to carry on the activity and to develop their individual writing skills for the exams.

Because students were asking me and I needed to respond to everyone individually. I did not want to ignore anyone because I knew they wanted me to answer their questions and if I left them without answers they might feel that I did not read their posts and I was not there at all, ahm so it is kind of encouraging, not encouraging, but to help them to work more and to show them that I care about their work and I care about this online homework. Also, you know it is good for them in exams; they will remember their own mistakes (Ms. Susan, stimulated recall interview).

Whilst progressing in the activity, there were few instances of S-S interaction when students sought feedback on their work from their peers. Ms. Susan did not intervene to appreciate students' mutuality whilst interacting together. The following extract is an example.

Extract 15 Case 1

Wiki interaction	By	Types of comments/edits
Aseel wrote at 9:20 p.m. on Apr 7, 2014 <u>(...)Also in Eid celebration , childrens get some money from neighbours, relatives and people around them. This money called "Al Eidiah" and it is given to the childrens when they greet adults and older people. As a way of showing happiness and great respect to this holy celebration, people gave childrens money to make them feel happy during this celebration.Childrens feel happy and they spend their money in buying sweets and toys(...)</u>	S	Expanding on own existing ideas
Aseel said at 9:21 p.m. on Apr 7, 2014 Girls I wrote a section on Eid celebration can anyone help me with some more ideas? Suggest and I will write them	S	Seeking peer help
→ Sarah said at 1:45 p.m. on Apr 8, 2014 I read your section it is really good and interesting you can focus on traditional clothes for men and women in Eid I think it will add some interesting points.	S	Giving feedback + Giving help + Suggesting
Sarah said at 1:46 p.m. on Apr 8, 2014 My group I have already started my section about old Kuwaiti marriage, can you read it and let me know your opinion about it.	S	Seeking peer feedback
→ Reem said at 2:45 p.m. on Apr 8, 2014 Good section I really like it but I suggest that you add more ideas so that the text becomes longer.	S	Giving feedback + Suggesting
Salma wrote at 3:42 p.m. on Apr 18, 2014 <u>Most Kuwaiti men gather in "Al Dewaniya" which is a reception room in the house and separated from women's place. Al Dewaniya is an indispensable feature of kuwaiti social life. Only men are presented in Al Dewaniya and they sit together or the sofa or on the floor and talk casually and exchanges greetings (...)</u>	S	Adding new ideas
Salma said at 3:44 p.m. on Apr 18, 2014 Girls I have completed the introductory section can you tell me how it looks?	S	Seeking peer feedback
→ Aseel said at 12:35 p.m. on Apr 19, 2014 It is really good especially the sentences about Al Dewaniya but I think you have to add a conclude sentence stating that “ in the next section the traditional clothes will be presented and discussed” I am saying this because I think in this way the ideas will be related together. But it is really good I like it ☺	S	Giving feedback + Elaborating + Suggesting + Expressing emotions

The previous wiki interaction can be characterised as reciprocal and student-centred, with students taking turns exchanging their feedback on what others have written on the wiki page. Aseel expanded on a section, which was previously written by her (see extract 13). She initiated collaborative behaviour, directing a comment to her peer, seeking help to elicit more ideas for her sub-section. Sarah engaged collaboratively with Aseel's writing and made a suggestion for Aseel's text. Despite Sarah's suggestion to write about the traditional clothes of men and women, the final wiki text showed that Aseel was not collaborative as she made no effort to incorporate Sarah's suggestion, but rather she wrote about the other well-known religious celebration '*Eid Al Adha*'.

The interaction also includes Sarah's initiatives to collaborate with others by inviting her peers to read her sub-section (see extract 8) and by seeking content feedback on what she had added. Only Reem engaged with Sarah's text and provided feedback for her. However, her feedback seemed to be general and did not specify exactly what kind of ideas to add to the text.

Out of these students, Salma seemed to struggle to work on her sub-section, which was assigned by Ms. Susan in extract 7 (i.e., summarising other's ideas). Here, in this extract, she opted to participate by adding new ideas to the introductory part. Salma collaborated by seeking content feedback on her section from her peers. Aseel critically read what Salma had written and this is evident from her constructive feedback. Rather than writing directly on Salma's text, Aseel suggested adding a concluding sentence that could help link Salma's part with the others. Aseel also justified and explained her suggestion to Salma and at the same time expressed her positive view of Salma's writing. Salma was not only passive in replying to Aseel's suggestion in the threaded mode, but also the final wiki text did not demonstrate incorporation of Aseel's suggestions.

Interview data could explain why students ignored each other peers' suggestions and why they avoided criticising or commenting negatively on what others had written. For example, Reem explained that she was the author of the text and would not necessarily accept all her peers' suggestions. She also believed that the teacher was the one who had the right to judge the quality of the work.

The content is mine but if they were useful comments, I considered them; if not I just ignored them. I would accept some comments but not all because if my writing was really not that good the teacher would have mentioned this (Reem).

Sarah expressed her happiness when she received constructive yet convincing feedback from others. At the same time, she declared that sometimes she ignored another's feedback when they commented in a negative way.

I would really feel happy if it is right and if their ideas were convincing and I felt that yeah, I really need to change something, but sometimes some girls just wanted to say anything, even if they were harsh comments, you know, this would really be annoying; ahm I would just ignore these comments (Sarah).

The situation did not differ markedly in Case 2; similar to Ms. Susan, Ms. Danah focused mainly on replying to students' comments seeking feedback and on encouraging students to add onto the wiki page rather than encouraging them to interact mutually with each other. This resulted in the occurrence of S-T interaction rather than S-S collaboration. Consider the following examples.

Extract 16 Case 2

Wiki interaction	By	Types of comments/edits
<u>Amy wrote at 11:33 a.m. on March 18, 2014</u> (...) fish, meat and chicken. <u>On any Kuwaiti menu you'll find a collection of delicious dishes, each one uneaque in taste, flavour and arema. And chances are that many of irresistible servings will be prepared according to the most popular style of cooking, the 'tabeeh'. Its mouth-watering taste is simply irresistible, especially with a menu that typically includes rice with lentils, Kuwaiti chicken biryani, potatoes and rice kebbeh.</u>	S	Expanding on own existing ideas
<u>Amy said at 11:35 a.m. on March 18, 2014</u> Teacher I added some sentences and I wrote an introduction for my part Kuwaiti food. Let me know your opinion about it	S	Acknowledging + Seeking teacher feedback
→ <u>Ms. Danah said at 11:57 a.m. on March 18, 2014</u> yes it was good reading your part but try to revise it , they are some errors I will check that once you revise it	T	Giving feedback + Promoting editing behaviour + Giving task instructions

Although Amy declared in her background questionnaire that she interacts more frequently with her peers, here in extract 16, she directed a seeking feedback comment to the teacher rather than to her peers. Ms. Danah was responsive; she posted feedback whereby she asked Amy to revise her section. Ms. Danah drew Amy's attention to the errors in her text and seemed authoritative when she reminded Amy that the revisions would be checked by her. Although Ms. Danah asked Amy to revise her text, the text mode analysis shows that Ms. Danah was the one who edited the wiki text (as is explained later in section 5.5.2.3).

In another example, although one of her student was seeking feedback on her writing from others and therefore initiated collaboration, Ms. Danah did not encourage students to engage with what was written, but immediately posted a feedback comment on what was added. The following extract illustrates Ms. Danah's behaviour.

Extract 17 Case 2

Wiki interaction	By	Types of comments/edits
<p><u>Mohrah wrote at 7:21 p.m. on Apr 5, 2014</u> <u>Drinks</u> In Kuwait, You will find all the international favorites drinks including coffee, tea, milk, soft drinks, and juices. Coffee, tea, and juices are the local favorites depending on the occasion and the season (...)</p>	S	Adding new ideas
<p><u>Amy wrote at 11:50 a.m. on Apr 21, 2014</u> (...) Also people in Kuwait serves daites with coffee. Daites are sweet and are very healthy and includes lots of mineral. Arabic coffee is very strong and have a very tasty flavour. People avoid drinking lots of cofee at night because they dont want to be wake up the whole night. If you visit any tradition Kuwaiti resturatnt, you will be serve a coffee with daites.</p>	S	Expanding on another's existing ideas
<p><u>Amy said at 11:16 a.m. on Apr 21, 2014</u> Girls I also will add some sentences in drinks section can anyone read it and tell me how it looks?? Need your feedback</p>	S	Seeking peer feedback
<p>→ <u>Ms. Danah at 12:29 p.m. on Apr 21, 2014</u> Very good Amy I liked it so much</p>	T	Encouraging + Giving feedback

As shown in the extract, Mohrah started to write about *drink*, Amy continued by expanding on Mohrah's previously written ideas. Amy then tried to initiate collaboration by asking her peers to engage with what she had added (i.e., seeking peers feedback). However, her initiation was responded to by Ms Danah, rather than by her group members.

In the interviews, the students indicated that they directed most of their posts to the teacher because they valued her feedback more than their peers' feedback. Mei, for example, trusted her teacher's feedback rather than her peers' feedback, and wanted to impress the teacher with her work and participation. Out of her group members, she seemed to be the most competitive.

I was posting more comments for the teacher because I was eager to know her opinion of my work, because she is the teacher and her feedback is the most important thing to me. I will not take my friends' feedback seriously because my friends may give me useless comments. I will consider my teacher's feedback, because what really matters to me are my teacher's comments on my work (...) I was trying to work more than my group members to impress her and to show her that I have good writing skills. I sometimes tried to be creative and to think about ideas that my friends had not written yet, just to show her than I am different from the others (Mei).

In contrast to Ms. Danah who did not promote students' mutual engagement with Amy's writing, in Case 3, Ms. Wesam behaved differently; she drew the students' attention to what others had posted and written. For example, in the following extract, she explicitly asked her students to share ideas with what Laila has suggested.

Extract 18

Wiki interaction	By	Types of comments/edits
<p><u>Laila said at 2:41 p.m. on Apr 11, 2014</u> Girls I know that we have not planned to write anything about dress in the Kuwaiti culture but after reading the page I feel that it needs some addition especially that if you are a tourist you certainly want to know what to wear when visit a country such as Kuwait , therefore, I feel that we need to add a section about Dress in the Kuwaiti culture I added the sub-title but need help with organising and generating some interesting ideas any thoughts ?</p>	S	Organising the work + Suggesting + Seeking peer feedback
<p><u>Ms. Wesam said at 3:19 p.m. on Apr 11, 2014</u> come in girls share your ideas with Laila , you are about to finish your page !</p>	T	Promoting giving feedback + Eliciting ideas
<p>→ <u>Sue said at 5:08 p.m. Apr 11, 2014</u> yes I think It can be an interesting point, what about starting the first paragraph writing saying that we have two kinds of dress modern western style and traditional clothes then we can write in details about these ?? what do you think?</p>	S	Giving feedback + Elaborating + Seeking peer feedback
<p>→ <u>Samar said at 10:38 p.m. on Apr 11, 2014</u> Yes I agree what about writing the following sentence as s topic sentence " Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes" This is the main thesis statement shall I write it ??</p>	S	Agreeing + Suggesting + Elaborating + Seeking peer permission
<p>→ <u>Laila said at 1:56 p.m. on Apr 12, 2014</u> It is really a good topic sentence Samar, start writing the section and I will add my ideas latter on when I read what you have written</p>	S	Giving feedback + Organising the work
<p><u>Samar wrote at 9:16 p.m. on Apr 12, 2014</u> <u>Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes.</u></p>	S	Adding new ideas
<p><u>Laila wrote at 8:56 p.m. on Apr 13, 2014</u> <u>The formal traditional clothes for women is wear ing "abaia" which means a large black piece of clothing that covers women body and they can wear it after wearing their normal clothes. In addition, as Islamic country, most women in the Kuwaiti society cover their hair with a scarf which called in Kuwaiti dialect "Malfa'a". It can be colourful and should cover the women's hair.</u></p>	S	Expanding on another's existing ideas
<p>→ <u>Ms. Wesam said at 9:28 p.m. on Apr 13, 2014</u> excellent girls</p>	T	Encouraging

The students iteratively added new ideas and reorganised the content of their wiki. Although the students had not planned to write about how people dress in Kuwaiti culture, Laila proposed new ideas and sought feedback from the others to incorporate the idea into the wiki text (an iterative planning process). Laila's post was followed by Ms.

Wesam's post, whereby she encouraged students to engage with what Laila had suggested. Other group members such as Sue and Samar elaborated on and transferred Laila's idea into main points and a topic sentence. Sue narrowed the focus and suggested writing about two main types of clothes: the western style and traditional clothes. Samar agreed on incorporating these points and based on this, she proposed a topic sentence for the paragraph that students could write in their wiki text. As a way of considering other group members' perspectives, Samar sought from them permission to write the topic sentence. Laila positively acknowledged Samar and provided feedback on her topic sentence. She asked her to start writing on the wiki page and informed her that she was going to expand and add on what would be added. The students' discussion in the wiki was followed by Samar and Laila's acts of writing in the wiki page. Samar added the topic sentence, which was then expanded on and elaborated by Laila. These collaborative behaviours were valued by Ms. Wesam, appreciated and encouraged the students' mutuality. At interview some students suggested that the teacher's comments encouraged them to pay attention to each other's comments and writing. For example, Laila commented on this by stating that because Ms. Wesam was asking them questions, it was necessary to engage with what others had written to be able to respond.

I asked them to provide feedback on my writing, but no one posted anything until the teacher asked them to participate; that is why you know the teacher should be there. This will encourage us as students to reply to each other and to read each other's writing because we want to participate. If we do not do this, we will have nothing to say or add (Laila).

5.5.2.2 *Languageing and collaborative dialogue*

It was observed that the level of student engagement in *languageing* (i.e. *collaborative dialogue*) varied from case to case. When teachers adopted an *expert role*, transmitting knowledge by immediately answering students' language related enquires, instances of *collaborative dialogue* were not observed. The interaction followed a structured pattern of the students seeking the teacher's language related feedback, and the teacher providing language related feedback in response. In contrast, when the teachers positioned themselves as *co-learners* and questioned a student's language use, S-S *collaborative dialogue* occurred. The following discussion highlights these findings.

In Case 2, there was a complete absence of *languageing*, not only between students, but also between Ms. Danah and her students. Ms. Danah did not make any effort to promote students' *collaborative dialogue*. One possible explanation for this could be,

not only her frustrated experience with the delayed-time communication (as discussed previously in section 5.5.1.1), but also the language barriers that her students faced when communicating online. For example, Mohrah mentioned that she faced difficulties in communicating with others using English.

I faced difficulty in expressing myself in English and sometimes I felt shy about asking questions online, because my language is not that good (Mohrah).

In contrast to Ms. Danah's class where there was an absence of *linguaging*, in Ms. Susan's class (Case 1) and Ms. Wesam's class (Case 3), students engaged in *linguaging* by questioning their own and each other's language use. The teachers' and students' behaviours when engaging in *linguaging* differed markedly in both cases. That is, in Ms. Susan's class (Case 1), students directed most of their language related enquires to Ms. Susan. At interview, the students illuminated the reasons behind their behaviours. Some students declared that they preferred and trusted their teacher's feedback rather than their peers. For example, Aseel expressed her uncertainty about her peers' feedback and believed that the teacher would give better answers. Likewise, Sarah felt that not all her peers' comments were useful due to their insufficient language abilities.

Sometime I do not trust their feedback because some of my group members are not that good in English and I always question their feedback. If the teacher is there, I feel that the teacher can give better feedback because she is our teacher (Aseel).

I feel that not all of their comments are really useful, especially when it comes to language, because some of them are not even good at grammar (Sarah).

During the activity, Ms. Susan did not encourage S-S *collaborative dialogue* and tended to reply immediately to students' seeking language related feedback posts. She transmitted knowledge in a *top down manner* by posting the answer for the students rather than encouraging them to collaboratively reach a joint answer (see examples in the following extract).

Extract 19 Case 1

Wiki interaction	By	Types of comments/edits
<p><u>Sarah said at 6:38 p.m. on Apr 2, 2014</u> Miss I wrote grilled kebdeh to mean the traditional food that people can eat, is there other way to say it in English? Help plz it looks funny when I wrote half of it in English and the rest in Arabic.</p>	S	Seeking teacher language related feedback
<p>→ <u>Ms. Susan said at 11:22 p.m. on Apr 2, 2014</u> You can simply say Grilled liver</p>	T	Giving language related feedback
<p>→ <u>Sarah wrote at 8:55 p.m. on Apr 3, 2014</u> as well as grilled Kebdah liver.</p>	S	Correcting own existing text
<p>→ <u>Sarah said at 8:55 p.m. on Apr3, 2014</u> I edited that miss thanks so much</p>	S	Acknowledging + Thanking
<p><u>Aseel said at 5:23 p.m. on Apr 17, 2014</u> Teacher I was revising the text it is written people follows?? is that right or wrong ?</p>	S	Seeking teacher language related feedback
<p>→ <u>Ms. Susan said at 6:41 p.m. on Apr17, 2014</u> No you need to correct it, it should be people follow , people is a plural noun</p>	T	Promoting editing behaviour + Giving language related feedback
<p>→ <u>Aseel wrote at 8:02 p.m. on Apr 17, 2014</u> (...)People follows follow the Islamic rules(...)</p>	S	Correcting another's existing text
<p><u>Salma said at 1:54 p.m. on Mar 18, 2014</u> Teacher I will write about the traditional clothes of Kuwaiti people, I just have one question if we want to write about this do we use past simple or present simple or both are ok? Because sometimes I want to say something that people used to wear but they don't wear nowadays. Hope you answer my question.</p>	S	Seeking teacher language related feedback
<p>→ <u>Ms. Susan said at 10.00 p.m. on Mar 18, 2014</u> Salma , it depends on the context, for example if you want to write about clothes in the past, you have to say that "people wore" but if you want to say what people usually wear in Kuwait you have to use present simple and say that "people usually wear". Remember that we have usually and people (plural) so we need to use present simple without "s". Go ahead and write something I am sure you will be fine and I will be checking your writing</p>	T	Giving language related feedback + Giving task instructions

The previous interactions occurred between the students and the teacher. All the interactions were initiated by the students and were structured as student initiation-teacher response- student/teacher edits, except the last sequence between Salma and Ms. Susan, which did not end up with an editing behaviour. Sarah initiated a language related inquiry; she seemed to struggle to find the appropriate word for her sentence. She considered using Arabic as inappropriate and therefore sought help from the teacher to find alternative vocabulary. Ms. Susan responded to her and provided the required language related feedback. Following this, Sarah edited her text based on the teacher's feedback. Whilst reading the text, Aseel also noted a grammatical mistake in Salma's

text (see extract 6). She collaboratively questioned Salma’s use of ‘s’ with the verb ‘follow.’ Ms. Susan responded to her by providing language related feedback, which helped Aseel to engage collaboratively with Salma’s text by correcting her grammatical mistake. Likewise, Salma informed the teacher that she was going to write about traditional clothes and to start this she initiated a question to the teacher, asking her about the simple past tense. The teacher provided the language related feedback by explaining to Salma the conditions for using the verb ‘wear’ in the simple past and present.

There were few instances of *linguaging* between students. Ms. Susan was passive when it came to clarifying ambiguities between the students or promoting *collaborative dialogue* in the threaded mode (see the following two extracts).

Extract 20 Case 1

Wiki interaction	By	Types of comments/edits
<u>Aseel wrote at 7:18 p.m. on Mar 20, 2014</u> (...) in Kuwait , people has two major religious holidays that are cause for celebration among all others Eid al Fitr is an event filled with numerous foods, (...)	S	Adding new ideas
<u>Salma said at 5.51p.m. on Apr 7, 2014</u> OMG is it okay to write food with “s” ??? girls	S	Seeking peer language related feedback
→ <u>Sarah said at 6:07 p.m. on Apr 7, 2014</u> Oh yes why not?? When saying numerous foods that means many so plural why you say OMG	S	Giving language related feedback + Requesting clarification
→ <u>Salma said at 6:26 p.m. on Apr 7, 2014</u> I don’t know but it is my first time sees food as foods! That’s why I said OMG	S	Giving clarification

Salma read Aseel’s text and questioned the use of ‘s’ with the word ‘food.’ The interaction occurred between Salma and Sarah, who had the highest language abilities in the group. Salma used the ‘OMG’ abbreviation which stands for ‘oh my God’ to express her surprise about using ‘s’ with the word ‘food’. Although Salma appeared unsure, Sarah insisted that the word is grammatically correct when she replied by providing language related feedback, “oh yes, why not?” suggesting that she did not see any problem in the sentence. Sarah then made her answer accountable; she explained to Salma why she thought that the word was correct and asked Salma to explain her standpoint. Salma seemed unsure about herself, and explained that it was her first time seeing the word ‘food’ in the plural. Although there seemed to be ambiguity and the students seemed unsure about each other’s feedback, Ms. Susan did not intervene to

confirm or correct their feedback. Students were initiating collaborative behaviours, however these behaviours did not result in constructing new knowledge that went beyond their individual abilities (i.e., *engaging in a collaborative dialogue*). Also, this discussion did not lead to improvement in the final text (i.e., editing behaviour).

Likewise, in the following example, Ms. Susan did not intervene to promote collaboration between Aseel and Reem; although Reem commented on Aseel's grammatical mistake, Aseel's response seemed negative.

Extract 21 Case 1

Wiki interaction	By	Types of comments/edits
<u>Sarah said at 11:28 p.m. on Apr 2, 2014</u> Miss check our page and tell me what do you think of it??	S	Seeking teacher feedback
→ <u>Ms. Susan said at 8:40 p.m. on Apr 3, 2014</u> It is really good I like the heading you did them as I told you but please change the purple too light!!!	T	Giving feedback + Giving task instructions
→ <u>Aseel said at 9:06 p.m. on Apr 3, 2014</u> yeah miss the colour is disgusting I dis like it	S	Acknowledging + Other talk
→ <u>Reem said at 12:45 p.m. on Apr 4, 2014</u> Dis like is a one word it should be dislike	S	Giving language related feedback
→ <u>Aseel said at 3:18 p.m. on Apr 4, 2014</u> I know but I am talking to the teacher do your own job	S	Refusing

Reem commented on Aseel's use of *dislike* as two separate words. Reem provided feedback to correct Aseel's mistake. However, Aseel's reaction was negative towards Reem's comments and she behaved in a *non-collaborative* manner. That is, rather than engaging with what Reem posted, she claimed that she knew about Reem's given information and explained that she was not talking to her, and asked her to do her job rather than correcting her mistake.

In contrast to Ms. Susan who adopted an *expert role* in answering all students' language related enquiries and appeared passive in promoting *collaborative dialogue* between students, Ms. Wesam explicitly asked students to engage with Sue's seeking language related feedback comment, as in the following extract.

Extract 22 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Laila wrote at 8:21 p.m. on Mar 21, 2014</u> <u>Culture of Kuwait:</u> Kuwait has especial culture, it is a mix of Arabic, Islamic and western norms and believes. However, its Arabic Islamic heritage dominate people's life in Kuwait and the country remain conservative towards western tradition (...)</p>	S	Adding new ideas
<p><u>Laila said at 8:23 p.m. on Mar 25, 2014</u> Girls waiting your feedback on my writing. ...</p>	S	Seeking peer feedback
<p>→ <u>Sue said at 1:40 p.m. on Mar 26, 2014</u> Laila I checked your writing, I edited some of the mistakes I think we need to use mixture not mix because mix is verb and we need to use as noun which is mixture is that right teacher?</p>	S	Giving language related feedback+ Seeking teacher language related feedback
<p><u>Sue wrote at 1:36 p.m. on Mar 26, 2014</u> It is a mix mixture of Arabic, Islamic and western norms and belives believes. However, Its Arabic Islamic (...) the country remain remains conservative towards western tradition.</p>	S	Correcting another's existing texts
<p>→ <u>Ms. Wesam said at 2:23 p.m. on Mar 26, 2014</u> Girls Sue is asking about something really interesting can you join the discussion?</p>	T	Promoting giving language related feedback + Promoting participation
<p>→ <u>Samar said at 4:19 p.m. on Mar 26, 2014</u> Oh Sue it is my first time to notice the difference but why mixture ?? is using mix wrong here , I mean we can say a mix of and in this case here it is going to be correct as well don't you think the same guys ??</p>	S	Acknowledging + Seeking peer language related feedback + Elaborating
<p>→ <u>Eman said at 8:38 p.m. on Mar 26, 2014</u> I think mix is wrong and mixture seems appropriate although I am not sure what is the difference between both of them</p>	S	Giving language related feedback
<p>→ <u>Ms. Wesam said at 4:51 p.m. on Mar 27, 2014</u> Laila what do you think? can you tell your friends the difference between the two words if there is a difference</p>	T	Promoting giving language related feedback
<p>→ <u>Laila said at 1:44 p.m. on Mar 28, 2014</u> I don't see any difference teacher and I think we can use both of them, I am not totally sure though.</p>	S	Giving language related feedback
<p>→ <u>Ms. Wesam said at 1:53 p.m. on Mar 29, 2014</u> I would say they are completely interchangeable in this case. When used as a noun mix is a synonym of mixture</p>	T	Giving language related feedback

In the previous example, the students' interaction focused on the appropriateness of using the vocabulary item *mixture* over *mix* in Laila's text. The online interaction was student-centred, in which various collaborative behaviours were exhibited. Sue collaboratively reciprocated Laila's initiation and provided language related feedback in the form of a comment in reply, and an editing behaviour. That is, she corrected Laila's in-text grammatical mistakes and at the same time provided a commentary to highlight the differences between *mix* and *mixture*. Sue referred back to the teacher to confirm her comment.

Instead of providing the required feedback, Ms. Wesam asked the students to engage with each other to discuss Sue's comment. She redirected the question to the group members rather than simply providing a *yes* or *no* answer. The teacher's post was followed by student posts, in which they took turns to share their language related feedback on Laila's writing. Samar and Eman posted their answers in a different way. That is, Samar critically questioned Sue's feedback, whereas Eman accepted Sue's contribution and confirmed her answer. However, the students seemed unsure about their contributions, and this is evident from Sue seeking the teacher's reassurance, Samar seeking other peers' feedback, and Eman explicitly expressing her uncertainty by saying, "*I am no sure*". Rather than providing the answer for the students, Ms. Wesam intervened again and showed her curiosity about language use, by asking Laila to explain the difference to her group members. Although Laila provided the answer to what the students were discussing, she also seemed uncertain about her contribution. Her uncertainty was followed by Ms. Wesam's language related feedback that confirmed Laila's contribution. The final text showed Laila's acceptance of Sue's editing behaviours, since she did not return her original writing using the wiki revert functionality.

At interview, Ms. Wesam suggested that she was trying to make the activity as student-centred activity. Furthermore, she acknowledged that she knew that the answer was at the students' language level and that some students in the group could answer it. Therefore, she opted to encourage peer feedback rather than giving a direct answer.

I feel it was my responsibility to make the wiki a student-centred context. I did not want them to ask me but rather ask those who were in the group (...) I am sure they know the correct answer; that is why I tried to avoid giving directly the correct answer. I wanted them to ask and feel curious about finding the answer (...) I know that there are excellent girls in the group who can provide the correct answer, so I posted comments for them to ask each other and again to work together rather depending on me (Ms.Wesam, stimulated recall interview)

Whilst students were writing their wiki text, Ms Wesam explicitly encouraged them to engage with each other's texts and drew the students' attention to each other's mistakes. The following extract illustrates this point.

Extract 23 Case 3

Wiki interaction	By	Types of comments /edits
<p><u>Laila wrote at 10:16 p.m. on Apr 20, 2014</u> <u>Indeed, the Kuwaiti wedding party has special features and people like attend wedding, because they can spend very interesting times and meet all their friends and families. Kuwaiti wedding is not like other cultures, men and women are segregate and dont meet in wedding, but rather, men have seperated hall and women have other hall and only the groom and his families (father, brother, uncles) can enter the women wedding hall to take his bride.</u></p>	S	Expanding on own existing ideas
<p><u>Ms. Wesam said at 12:45 a.m. on Apr 21, 2014</u> Girls Laila has added lots of sentences can anyone read it and edit her writing I noted some grammatical mistakes it would be nice to discuss these mistakes.</p>	T	Promoting giving language related feedback + Promoting editing behaviours
<p>→ <u>Samar said at 11:28 a.m. on Apr 21, 2014</u> I have checked that teacher I think when writing two verbs we have to add "ing" so rather than writing like attend we have to write like attending or like to attend. also I am not sure how accurate is this sentence "men and women are segregate"... honestly I don't understand this point but generally the information is really good</p>	S	Giving language related feedback + Giving feedback
<p>→ <u>Eman said at 12:17 p.m. on Apr21, 2014</u> I think "like attending is more accurate but I also did not understand the "segregate" but I checked that in the dictionary it means مرفصل do you think we can use other vocabulary?</p>	S	Giving language related feedback + Seeking peer language related feedback
<p>→ <u>Laila said at 1:04 p.m. on Apr 21, 2014</u> I remember that we have already taken the word "segregate" last year, I think it is commonly used.. segregated=separated I don't think we need to change it ☺</p>	S	Giving language related feedback
<p>→ <u>Sue said at 2:57 p.m. on Apr21, 2014</u> yeah I also know its meaning we don't have to change it but if we write "men and women are segregated" this will be more accurate what do you think girls?</p>	S	Acknowledging + Giving language related feedback + Seeking language related feedback
<p>→ <u>Samar said at 4:17 p.m. on Apr 21, 2014</u> yes I think that is grammatically more correct anyway I edited that</p>	S	Giving language related feedback

Wiki interaction	By	Types of comments /edits
<p>Samar wrote at 4:15 p.m. on Apr 21, 2014 like attendattending wedding, because they can all their friends and families-relatives. Kuwaiti wedding is not men and women are segregate-segregated</p>	S	Correcting another's existing text

Various behaviours that can be classified as collaborative behaviours are presented in extract 23. Ms. Wesam's intervention was followed by student interaction, whereby students engaged in a *collaborative dialogue*. They engaged critically not only with what had been written by Laila in the wiki page, but also with each other's contributions in the wiki threaded mode. Samar provided positive feedback on the content; however, she commented on some errors in form, such as the use of *gerund* and *passive voice*. Eman agreed on what Samar suggested by confirming the correctness of *like attending* over *like attend*. Further, she collaborated with the others by sharing the meaning of the word *segregate* in Arabic, as if she was offering language related help to Samar, who had explicitly expressed her uncertainty about the meaning of the sentence. Samar used their first shared language (i.e., Arabic) as semiotic mediation to explain the meaning and to help her group members. Having mentioned the meaning of the piece of vocabulary, Eman then sought feedback from the others on whether or not they could use the word in their text. Laila responded to Eman and her post illustrated that the students had significant past experience and shared knowledge. Her use of *we*, and her explanation that they had already learnt the word previously, seems to exhibit her collaborative endeavour to remind her peers about their past shared knowledge. She shared a synonym of the word *segregated* in order to help her friends comprehend the meaning of the word. Sue acknowledged Laila's contribution and elaborated on it by providing the correct form of the sentence; she then initiated collaboration with the others by seeking feedback on the correctness of her suggestion. Samar reciprocated Sue's initiation by providing feedback at two levels. That is, she confirmed Sue's language related feedback and edited the text based on the group *collaborative dialogue*.

In the following example, Ms. Wesam positioned herself as a *co-learner*, questioning the students' language use. Similar to the previous extract, she used the text mode grammatical mistakes to stimulate S-S *collaborative dialogue*.

Extract 24 Case 3

Wiki interaction	By	Types of comments/edits
Samar wrote at 5:27 p.m. on Mar 30, 2014 (...) Kuwaitis have always been free to manage their affairs among themselves (...) and develop their unique cultural characteristics in their own way (...).	S	Expanding on another's existing ideas
Ms. Wesam said at 11:38 p.m. on Apr 1, 2014 Group 2 I noticed that Samar has written the following sentence in paragraph 4 "Kuwaiti have always been free to manage their affairs among themselves" do you think using the word affair fit the sentence and the meaning here, what do you think of using other sentence think together about an alternative word that can suit the sentence and the meaning	T	Promoting giving language related feedback
→ Laila said at 12:39 a.m. on Apr 2, 2014 I think what Samar has written is not wrong but the word cannot be used in this sentence to refer to what we are trying to say I have no idea about alternative but relation or affinity can be used what do you think girls??	S	Giving language related feedback + Seeking language related feedback
→ Sue said at 4:47 p.m. on Apr 2, 2014 Affinity I don't know what does this word means exactly I have not used that in a sentence before but I checked that in the dictionary it means like a sort of close relationships. I think rather than saying relation or affair we can say relationship or social relationships. Any comments?	S	Giving language related feedback + Seeking language related feedback
→ Samar said at 5:22 p.m. on Apr 2, 2014 Oh I have just realised that there are a difference between using the two words !! affair can be used to a love relationships between two people but relationships is more formal and can be used to describe the sort of relationships that we are talking about here ☺ anyway I edited that and changed to relationships	S	Giving language related feedback + Elaborating
Samar wrote at 5:23 p.m. on Apr 2, 2014 free to manage their affairs <u>relationships</u> among themselves as they	S	Correcting another's existing text
→ Ms. Wesam said at 2:50 p.m. on Apr 4, 2014 Excellent girls I am so happy with your work so far , keep doing the work together it is really great	T	Encouraging + Expressing emotions + Promoting group cohesion

The wiki interaction started with Samar's expansion on Laila's ideas about cultural relationships. Ms. Wesam initiated the previous interaction when she posted a comment questioning Samar's use of the word *affair*. She showed her curiosity towards what Samar had written, and at the same time invited students to think together about an alternative piece of vocabulary. Here, Ms. Wesam used language as a *mediational tool* to stimulate student mutual discussion. The students engaged with each other in a *collaborative dialogue*, whereby they shared their answers in relation to what Ms. Wesam had questioned. Laila commented on Samar's writing by stating that the use of vocabulary did not fit the context, and therefore she provided alternative words, such as *affinity* and *relation* and sought her peers' feedback on these proposed alternatives. Sue

engaged with Laila's contributions; she built on what Laila suggested by sharing the meaning of *affinity*, and at the same time suggested the appropriateness of using *relationship* or *social relationships* over *affinity*. Samar realised that she could improve the text. Based on the teacher's intervention and her peers' comments, she noticed that there is a difference between *affair* and *social relationship*. Her realisation was expressed by the use of the discourse marker *oh*. Accordingly, she revised the text and replaced the word *affair* with the word *relationship*. Ms. Wesam intervened to express her positive attitude towards the students' work and at the same time encouraged them.

5.5.2.3 Co-constructing the wiki text

Observing students' writing behaviours suggested that there were some variations between the three cases in terms of how students wrote together. In the case of Ms. Susan (Case 1), the students mainly added ideas, with a few instances of correcting each other's existing text that were refused by others. In Ms. Danah's class, there were some instances of expanding on each other's existing ideas and one instance of correcting another's existing text that occurred at the end of the activity. In contrast, Ms. Wesam's students moved gradually from adding ideas to correcting and expanding on each other's texts (i.e., co-constructing the wiki text together).

The way that students co-constructed the wiki text appeared to be influenced by how the teachers interacted with them throughout the activity. In Cases 1 and 2, Ms. Susan and Ms. Danah rarely encouraged their students to correct the wiki text. Ms. Susan focused mainly on encouraging students to add ideas to their individual sub-sections, which were assigned by her at the beginning of the activity, whereas Ms. Danah did not give instructions about how to write the wiki text. Consider the following example to illustrate Ms. Susan's behaviours.

Extract 25 Case 1

Wiki interaction	By	Types of comments/edits
<p><u>Ms. Susan said at 5:59 p.m. on Mar 20, 2014</u> Salma and Aseel, where are you please start your sections, your friends have started</p>	T	Promoting participation
<p><u>Aseel wrote at 7:18 p.m. on Mar 20, 2014</u> <u>Formal celebrations in Kuwait:</u> <u>In Kuwait, people has two major religious holidays that are cause for celebration among all others. (...) Kuwaiti people also went to Eid prayer at the morning at 6 o'clock and pray in the mosque. They exchange kissing and greeting and also congratulations for Eid coming (...)</u></p>	S	Adding new ideas
<p><u>Salma wrote at 3:42 p.m. on Apr 18, 2014</u> <u>Most Kuwaiti men gather in "Al Dewaniya" which is a reception room in the house and separated from women's place. Al Dewaniya is an indispensable feature of kuwaiti social life. Only men are presented in Al Dewaniya and they sit together on the sofa or on the floor and talk casually and exchanges greetings. The owner of AlDewaniya should be hospitable and should entertainment his guests. Usually when gathering in Al Dewaniya, kuwaiti men wear formal clothes in formal occasions but some young men nowadays wear casual clothes.</u></p>	S	Adding new ideas

As shown in the extract, Ms. Susan's comment to students asking them to participate resulted in them adding new ideas to their sub-sections rather expanding or correcting each other's existing texts (see also previous extracts 8 and 15 for similar students' writing behaviour).

Ms. Susan's and Ms. Danah's students rarely edited each other's grammatical mistakes and mostly depended on their teachers to do so. Rather than encouraging editing behaviours, Ms. Susan and Ms Danah dominated editing the students' wiki text mistakes. The following extracts present both teachers' behaviours.

Extract 26 Case 1

Wiki interaction	By	Types of comments/edits
<p>Ms. Sasan wrote at 6:07 p.m. Mar 30, 2014 (...) related to Islamic culture because kuwait <u>because it</u> is an Islamic country. People follow islamic <u>the Islamic</u> rules (...). Kuwait and other middleeast countries has <u>middle eastern</u> countries have lots of common things such as language, religion and tradition <u>traditions</u>. (...) Greeting in Kuwait is differe <u>different</u>, it starts with the (...) ational address <u>dress</u> of Kuwaiti men and women: Most Kuwait <u>Kuwaiti</u> men wear a dishdasha opening to the waist. <u>It is made of light materials in white or ivory are white or ivory colour which are typical in summer, The long side pockets sufficeient are sufficeient</u> for their wallet(...) Marriage in Kuwait: (...) of money is usually spends <u>spen</u> on it. (...). in <u>In</u> Kuwaiti culture, (...) after the marriage not <u>rather than</u> before the marriage. This is very much reflect <u>reflects</u> the Kuwaiti cultural tradition (...) The relationship should <u>be</u> bonded in Islamic boundary</p>	T	Correcting students' text
<p>Ms. Susan said at 6:09 p.m. on Mar 30, 2014 Girls please check what I have edited through the page history it is really a good way of learning , learn from your own mistakes and if you have any questions do not hesitate to ask me</p>	T	Notifying students about edits + Giving task instructions
<p>Ms. Susan wrote at 9:33 p.m. on Apr 7, 2014 It is essence <u>essential</u> that family prepare for this celebration.</p>	T	Correcting students' text
<p>Ms. Susan said at 9:37 p.m. on Apr 7, 2014 Aseel you have lots of mistakes check what I have changed , one thing that I observed we have discussed last week the difference between essence and essential don't confuse yourself , I think what you wanted to use is essential so pay attention to this</p>	T	Notifying students about edits + Giving language related feedback
<p>Ms. Susan wrote at 12:45 p.m. on Apr 19, 2014 childrens Children get some money from around them. This money <u>is</u> called "Al Eidiah" and is given to the childrens children when they greet adults and elderer <u>elderly</u> people. As a way holy celebration, people gave childrens <u>children</u> money to make them feel happy during this celebration. Childrens Children feel happy (...). during <u>During</u> the first three days , most of Kuwaiti visiting <u>visit</u> their relatives and (...)</p>	T	Correcting students' text
<p>Ms. Susan said at 12:46 p.m. on Apr 19, 2014 Please girls pay attention children is a plural and you don't have to add "s", the singular is child and the plural form is "children"</p>	T	Giving language related feedback

In extract 26, Ms. Susan used the wiki text and threaded modes in a *complementary* manner to correct students' grammatical mistakes and draw students' attention to her edits. She also asked them to ask her questions related to her editing behaviour. This was followed by a wiki comment, which was directed at Aseel whereby she commented on her text and linked what had been discussed in the class to the wiki editing. Ms. Susan edited the mistake for Aseel rather than encouraging her to do so. She also posted another comment which was directed at the whole group, drawing their attention to their mistakes that repeatedly occurred, such as using 's' with 'children'.

At the interview, Ms. Susan declared that she believed that it is her responsibility as a language teacher to edit students' texts. She described a hierarchical relationship between her and her students. That is, she sees herself as the most knowledgeable person who delivers information to students who are expected to learn from their mistakes by

checking the page history. She appeared to claim that even in a wiki, there are predefined roles that the teacher and students should adopt.

Yeah I feel that it is my job (...) the teacher's role should be really prominent because I am the teacher. There should be a balance between what the students do and the teacher has to do (...) I mean we are teaching English and we need to deliver knowledge correctly, okay so leaving the students to make lots of mistakes without correcting them is a big problem for them. In the wiki the teacher should correct these mistakes and the students have to check the corrected form in the page history (Miss Susan, stimulated recall interview).

Likewise, Ms. Danah intervened frequently to edit students' wiki texts without promoting their editing behaviours. In contrast to Ms. Susan, she never used the threaded mode to notify her students of her edits, as illustrated in the following extract.

Extract 27 Case 2

Wiki interaction	By	Types of comments/edits
<p>Ms. Danah wrote at 1:11 p.m. on Mar 22, 2014 FoodFood and restaurants in Kuwait Kuwait is a very beautiful country with lots of restaurants that offer very delicious food. When you visit Kuwait, you will find many international cuisines. In our wiki page, you will presented these restaurants and the kind of food they offer. Kuwaiti food : (...) On any Kuwaiti menu you²ll you will find a collection of delicious<u>delicious</u> dishes, each one uneaque<u>unique</u> in taste, flavour and arema<u>aroma</u>. And chances<u>aroma, chances</u> (...)</p>	T	Correcting students' texts ¹⁴
<p>Ms. Danah wrote at 6:58 p.m. on Mar 25, 2014 Food and restaurants in Kuwait with lots of restaurants thatwhich offer very delicious food. our wiki page , you<u>we</u> will presented<u>present</u> these restaurants and the Kuwaiti food : Kuwaiti culture. The main meal<u>meals</u> in Kuwait involves<u>involve</u> fish, meat and chicken. Lebanese food: in front of the Arabic<u>Arabic</u> gulf street where you the sea view and the nice weather</p>	T	Correcting students' texts
<p>Ms. Danah wrote at 11:23 p.m. on Mar 30, 2014 There is a vast range of foodstuff<u>food</u> that <u>are</u> available in Kuwait (...) influences<u>influence</u> (...)</p>	T	Correcting students' text
<p>Ms. Danah wrote at 5:54 p.m. on Apr 5, 2014 it likes<u>is the most</u> traditional Kuwaiti<u>Kuwaiti</u> resturant that attract<u>attracts</u> many people in Kuwait<u>Kuwait</u> becasue<u>because</u> of his taste<u>his taste</u> food<u>food</u>. its food taste. You can find this avenues shopping centre , Al shamiya<u>Al-Shamiya</u> co-operative society or in restaurant hall. This cafe serve kuwaiti<u>kuwaiti</u> serves Kuwaiti (...), it . The prices is<u>are</u> really good and you the stuff there ! i REALLY RECOMMEND YOU TO VISIT THIS BEAUTIFUL RESTAURANT</p>	T	Correcting students' text + Deleting
<p>Ms. Danah wrote at 12:01 p.m. on Apr 21, 2014 People in Kuwait serves<u>serve</u> daites<u>dates</u> with coffee. Daites<u>Dates</u> are sweet and are<u>are</u> very healthy and includes<u>include</u> lots of mineral. (...) If you visit any tradition<u>traditional</u> Kuwaiti resturant<u>restaurant</u>, you will be serve<u>served</u> a coffee with daites<u>dates</u>.</p>	T	Correcting students' texts

As shown in extract 27, Ms. Danah intervened constantly to edit the grammatical mistakes in the students' wiki texts. Interviewing her illuminated some of her justifications for dominating the editing behaviour, instead of encouraging students to do the editing themselves. She declared that producing an accurate wiki text is important. She expressed her uncertainty about students' willingness and abilities to edit their own and other's wiki texts. She also believed that it was her responsibility to ensure that

¹⁴ Although in extract 16 she asked Amy to edit her text, extract 27 showed that Ms. Danah is the one who edited the text.

learning occurs in the wiki. Similar to Ms. Susan, she saw the history record of edits as an opportunity to teach students about their grammatical mistakes.

I was trying to help them make their wiki text better and more accurate. They may feel hesitant about editing their own mistakes because they may feel embarrassed or unsure about their editing, I mean whether it is right or wrong. I think it is my role to guide students towards having an accurate text. They will check their edited mistakes and by doing so they will learn things correctly (Ms. Danah, stimulated recall interview).

Ms. Danah's students were completely dependent on the teacher when it came to editing their wiki text. At interview, Fai and Amy felt that editing another's text was not their job as long as the teacher was present in the wiki. They believed that due to their limited language knowledge, compared with the teacher's knowledge, their friends might refuse their editing.

I do not think that we will be able to manage correcting each other's mistakes, because I do not know, we may fight over or refuse each other's editing because we all are students and she is the teacher, so she has the right to correct our mistakes (Fai).

I felt that it was not an easy job, because my friends' texts had so many errors and I personally did not feel confident in editing their grammatical mistakes. And also, as long as the teacher was editing our mistakes, why should we edit these mistakes? I think she has better knowledge of language and she usually helps us in editing our wiki page (Amy).

The only instance of correcting another's text was performed by Amy, when Ms. Danah explicitly asked the students to edit their wiki page at the end of the activity. The following extract illustrates this.

Extract 28 Case 2

Wiki interaction	By	Types of comments /edits
<p>Ms. Danah said at 11:09 p.m. on Apr 13, 2014 Great job! Here are a few tips: 1- Make the words in the headings all start with a capital letter: "Drinks "and "Food behaviour and etiquette ", not all small letters. 2- Make all the text and pictures in the middle. The part about Cafe Baza is on the side. 3-Fix the spelling of the words "restaurant" and then add more. You wrote you'd mention a number of restaurants, you wrote "1-" in front of Cafe Baza and that was it? Add more examples of restaurants. 4- Please remove " I will continue later bye girls ", that's just so silly The table on the page seems needs some editing it doesn't look nice, try to make it better. Work on these and I will check whether you have done your job!</p>	T	Encouraging + Giving task instructions + Giving Language related feedback
<p>Amy wrote at 12:19 a.m. on Apr 17, 2014 Kuwaiti restaurants <u>Kuwaitis restaurants?</u> names: Farej 1-Farej Swelah (...) Bazza 2-Bazza cafe (...) Drinks <u>Drinks:</u> In Kuwait, You you will find all the international favourites drinks, including coffee, tea, milk, soft drinks, and juices. Coffee, tea, and juices are the local favorites <u>favourites</u> depending on the occasion and the season, but nearly any non-alcoholic drink is readily available in Kuwait. (...) you are not from the region- etiquette<u>Etiquette:</u> I will continue later bye:-)</p>	S	Correcting another's existing text + Deleting
<p>→ Amy said at 12:25 a.m. on Apr17, 2014 Miss check the page now all these have been done</p>	S	Acknowledging

Amy edited the page and then informed the teacher about her editing. Amy's exceptional collaborative initiative to edit the page was due to the teacher's instructions. As shown in the teacher's comment, Ms. Danah asked students to edit some language mistakes, such as using capital letters for headers and editing the spelling of the word *restaurants*. Furthermore, she asked them to edit the format of the page by instructing them to organise the text, pictures and tables on the page. Ms. Danah's explicit instructions appeared to encourage Amy to engage critically with what others had written, and accordingly edit their language related mistakes.

In contrast to Ms. Danah's students who were completely dependent on the teacher, some students in Ms. Susan's class initiated collaboration by correcting each other's existing texts, however, these initiatives were refused by the others. Consider the

following interaction between Sarah who had a high proficiency language level and Reem who had a lower proficiency level.

Extract 29 Case 1

Wiki interaction	By	Types of comments/edits
<p>Reem wrote at 5:11 p.m. on Apr 1, 2014 (...)marriage as an important occasion. Lots of Many money is usually spend creed. In Kuwaiti culture, the family families used to choose the couples see each other's in on the marriage day of marriage(...)</p>	S	Correcting another's existing text
<p>Sarah said at 5: 22 p.m. on Apr 1, 2014 Reem stop editing my section in the wrong way, I noticed that my section has edited by you and there were some mistakes please work on your own text</p>	S	Refusing
<p>→ Ms. Susan said at 5:39 p.m. on Apr 2, 2014 Stop annoying each other's and FOCUS ON THE TASK!</p>	T	Giving task instructions

Reem collaborated at the text level by correcting Sarah's added text (see extract 8). The interaction represents Sarah's negative attitudes towards Reem's editing behaviour. Although Reem's attempt involved some correct edits, Sarah considered her editing as wrong edits and asked her to stop editing her section and to work on her own text. Sarah's post was followed by the teacher's post, whereby she intervened and asked students to avoid annoying each other and to focus only on the task. This interaction showed individual ownership of the text; students refused each other's attempts to change or edit what they had written, demonstrating a high-low level student power relationship. Interviewing Sarah suggested that she felt that her peers' language related feedback and edits were useless because they sometimes edited mistakes wrongly. She declared that editing errors is the teacher's responsibility.

I feel that not all of their comments are really useful especially when it comes to language because some of them are not even good at grammar (...) one girl edited my mistake wrongly but fortunately the teacher was there. She noticed this and edited that correctly, so if the teacher had not been there, who would have detected this mistake? (Sarah).

Similar to Ms. Susan's students, Ms. Wesam's students (Case 3) started the activity by adding new ideas to the wiki page. Consider the following example to illustrate her students' behaviours at the beginning of the activity.

Extract 30 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Samar wrote at 7:14 a.m. on Mar 21, 2014</u> <u>kuwait is an old country which was build with its own people’s hand. Kuwait as a country has especial cultural believes and background. All people share similar cultural believes and behaviours since these behaviours root in the Kuwaiti society. in our wiki we present some of the main cultural norms which related to men and women and from this to the whole society. so welcome to our wiki and it is our pleasure to share with you our (...)</u></p>	S	Adding new ideas
<p><u>Laila wrote at 8:21 p.m. on Mar 21, 2014</u> <u>Culture of Kuwait:</u> <u>Kuwait has especial culture, it is a mix of Arabic, Islamic and western norms and believes. However, its Arabic Islamic heritage dominate people’s life in Kuwait and the country remain conservative towards western tradition. The Arabic Islamic culture reflect in women and men relationships and clothes.</u></p>	S	Adding new ideas

Samar and Laila started the wiki text by adding their ideas to the wiki page in a parallel mode. However, Ms. Wesam played an important role in encouraging students to engage with another’s text. She posted the following comments on the wiki front page (threaded mode) to guide students.

Extract 31 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Ms. Wesam said at 9:11 p.m. on Mar 18, 2014</u> I can see that there are some students in some groups adding junk of texts as if they wanted to finish the writing task. It cannot be done like this my lovely students, it is a group work you need first to discuss and read what others have written and also build on that don’t just start over and over this will make the ideas in your wiki page unconnected which will result in incoherent text.</p>	T	Giving task instructions + Promoting group cohesion

In extract 31, there is clear guidance from Ms. Wesam to engage with another’s texts and build on what others have written, rather than adopting a cumulative style of writing. She also directed students to discuss ideas together as a group.

In addition to posting a thread for all groups on the wiki front page, she intervened in the group wiki page and edited it in the initial stages of the activity as a way of encouraging students to engage with each other’s texts. She used the text and threaded modes in a

complementary manner when she modelled editing behaviour (see the following example).

Extract 32 Case 3

Wiki interaction	By	Types of comments/edits
<p>Ms. Wesam wrote at 7:21 a.m. on Mar 25, 2014 Kuwait was build <u>built</u> with <u>by</u> it's own people's hand <u>hands</u> (..) since these believes are root <u>rooted</u> in the Kuwaiti society. in <u>In</u> our wiki page <u>page</u>, we present <u>are going to present</u> some of the cultural norms which are relate <u>related</u> to men and women</p>	T	Correcting students' texts
<p>Ms. Wesma said at 7:22 a.m. on Mar 25, 2014 Girls please check the editing page some editing have been made by me try to learn from what I have edited there are some grammar rules that we have just taken in the class such as passive voice</p>	T	Notifying students about edits
<p>Ms. Wesam wrote at 2:36 p.m. on Mar 26, 2014 The Arabic Islamic culture reflects <u>is reflected</u> (...)</p>	T	Correcting students' texts
<p>Ms. Wesam said at 2:37 p.m. on Mar 26, 2014 Girls you are repeating the same passive voice mistake check the page history I will leave the editing for you next time</p>	T	Notifying students about edits + Promoting editing behaviour
<p>→ Samar said at 4:21p.m. on Mar 26, 2014 Thanks teacher for pointing out this it is really helpful I struggle to use passive voice in sentences but now it seems very clear to be because when you correct "reflects" to "is reflected" the example was so clear</p>	S	Thanking + Acknowledging

There were some grammatical mistakes in Samar's and Laila's texts (see extract 30). The students did not correct each other's mistakes, but rather added to each other's ideas. In this extract, Ms. Wesam edited the students' mistakes and reminded them about what they had learnt in the class (e.g., the passive voice). She used the 'we' statement to help the students in recognising their existing knowledge and to help them to see continuities in their learning. She linked previous materials taught in the classroom and the present wiki activity. Since students were repeating the same passive voice mistake, she drew their attention to her editing and informed them that she would leave the act of editing to them next time (i.e., modelling). Her acts of editing and posts were followed by Samar's appreciation and acknowledgement of her understanding of the passive voice.

Ms. Wesam's behaviour suggests that she was modelling editing behaviours and encouraging students to engage in editing the wiki page. The interview with her confirmed this online interpretation. She believed that due to the novelty of the wiki in her classroom, students needed the teacher's guidance to engage in editing behaviour.

She thought that this could be done through modelling the editing behaviours and showing the teacher's acceptance of them.

You know a wiki is something new to them, so you have to expect the least thing from them. I mean it was nice seeing them discussing and replying, but in order to push them further to edit and act on each other's texts, they need guidance and they have to accept the fact that the teacher herself is encouraging such behaviour (...). At the beginning I realised that many students, even the high level students, were reluctant to edit each other's or even their own mistakes. They do not want to make a mistake in front of me or their friends; that's why my editing was necessary (Ms.Wesam, stimulated recall interview).

The following extract presents examples of how her students engaged not only in expanding on each other's ideas but also in editing each other's grammatical mistakes.

Extract 33 Case 3

Wiki interaction	By	Types of comments /edits
<p><u>Samar wrote at 1:39 p.m. on Mar 26, 2014</u> <u>Men's in the Kuwaiti culture:</u> <u>The first prominent tradition in Kuwait is the men gathering in a place called 'Dawaniya'. In Dawaniya , men gather and discuss different social and political issues and they spend their free time together. Dawaniya is a room or a big hall in every house where men can drink coffee and tea while discussing their issues (see picture). People know each other's through gathering in Aldawania.</u></p>	S	Adding new ideas
<p><u>Laila wrote at 4:27 p.m. on Mar 26, 2014</u> <u>Indeed, Most of men gather in the afternoon when they finish their working hours at the morning. The main traditional clothes when visiting Dawaniya is wearing 'deshdasha' a white men dress with 'kitra' and 'Iqal'. Men always wears this clothes as a way of showing respect to their culture and traditions.</u></p>	S	Expanding on another's existing ideas
<p><u>Sue wrote at 8:51 p.m. on Mar 26, 2014</u> <u>Most of the men gather are gathering in the afternoon when they finish finished their working hours at the morning. The main traditional clothes when visiting Dawaniya is <u>are</u> wearing 'deshdasha' a white men dresses with 'kitra' (...). <u>In most of formal events, men gathers and spends hours with their relatives and friends. Formal events such as Eids and Ramadan are the main cultural events and in which Dawaniya becomes full of men</u></u></p>	S	Correcting another's existing text + Expanding on another's existing ideas

In contrast to Ms. Susan's and Ms. Danah's students' writing behaviours, as shown in extract 33, Ms. Wesam's students not only added new ideas, but also expanded and

corrected each other's existing texts. In the following example, some students used the threaded and text modes in a *complementary manner* to discuss their wiki text.

Extract 34 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Sue wrote at 3:16 p.m. on Apr 4, 2014</u> <u>Marriage in the Kuwaiti society:</u> traditionally in Kuwait, men and women linked together in a formal and Islamic relationship which is the marriage. Like other Arabic and Islamic society, it is unacceptable in kuwait to engage in love relationship with a women without marriage. Marriage in Kuwait in the past , was very simple and the groom's family go to the bride's house to ask her father her hand (engagement) . The groom's family also prepare the dowry for the Bride as agreed with her father. The groom is responsible to find a suitable house for his bride and he has to well prepare it for her.</p>	S	Adding new ideas
<p><u>Sue said at 3:18 p.m. on Apr 4, 2014</u> Hello my lovely group :) As planned I did write about Kuwait marriage as a tradition thing in Kuwait but need your help to add on it plz feel free to edit</p>	S	Greeting + Seeking peer help
<p><u>Laila wrote at 1:36 p.m. on Apr 5, 2014</u> When the bride's family took the dowry, they prepare the bride for the husband (...) She keep preparing before the wedding party. Also, all her friends and families gather in the night before the wedding to congratulate the bride and do the 'Yalwa'. The Yalwa means a celebration for the bride in her family house which involves putting Henna in the bride's hands and sign songs for the bride. the Yalwa performs by a number of woman and girls (...)</p>	S	Expanding on another's existing ideas
<p>→ <u>Samar said at 6:36 p.m. on Apr 5, 2014</u> hello Sue miss you so much during this weekend :) I check your writing I edited some of your mistakes I think miss has mentioned the use of passive voice You wrote the wrong thing again when you say " the Yalwa performs by woman and girls" I think here we also using the passive so it is The Yalwa is performed by ..." Also I don't think it makes sense to say women and girls we can just say women. I also notice that you write woman is singular and women is plural</p>	S	Greeting + Expressing emotions + Giving language related feedback
<p>→ <u>Samar wrote at 6:35 p.m. on Apr 5, 2014</u> When the bride's family took takes the dowry, (...) she keep keeps preparing before the wedding (..) in her family family's house which involves putting henna . The Yalwa performs is performed by a number of woman and girls Women in the bride's house.</p>	S	Correcting another's existing text
<p>→ <u>Sue said at 10:58 p.m. on Apr 5, 2014</u> thanks so much Samar I checked your editing it makes our writing better thanks my friend</p>	S	Thanking + Acknowledging

Sue, Laila and Samar were interacting in the previous extract. They engaged in collaborative behaviours, such as writing according to what had been agreed previously with other group members, expanding on each other's ideas and correcting each other's grammatical mistakes, and seeking feedback on writing from the other group members.

The collaborative interaction was started by Sue, who informed her group members that she followed the outline planned, and wrote about marriage. She then sought feedback on her writing and permitted the others to edit her text. Here, Sue's willingness to accept another's edits on her text contrasted with Sarah's refusals in extract 29 (Case 1). In the wiki page, Laila elaborated on Sue's text and expanded on her ideas. Furthermore, Samar responded to Sue's initiation and engaged critically with what had been added on the page. Samar's post included some grammatical explanations of Laila's language errors. She offered language related feedback on the passive voice and the plural form of woman. Samar seemed to comprehend how the passive voice is used in writing. In extract 32, she claimed that she understood how it was used in the sentence, in this example; there is evidence that she was now able to detect passive voice errors and correct them in the right manner. Clearly, the extract included some social talk between the students, whereby they expressed a sense of belonging to the group. For example, in the comments Sue and Samar greeted each other and Samar expressed her feeling that she missed Sue.

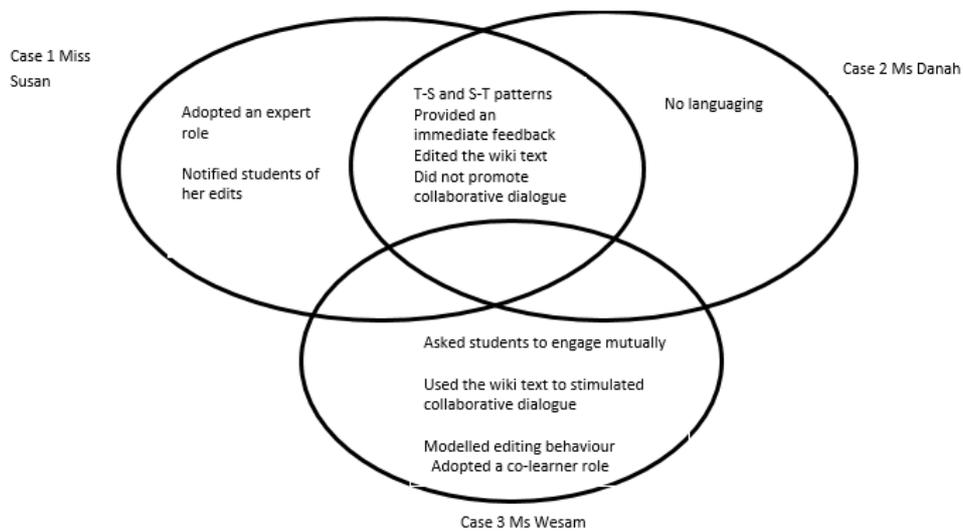
To summarise, the main observations of the students' interactions were: (1) students in Case 1 mainly added ideas in a parallel mode, and therefore worked cooperatively rather than collaboratively; others' suggestions were not incorporated into the final text and other's edits were mainly refused; (2) although there was an absence of *collaborative dialogue* in the threaded mode in Case 2, the students' writing behaviours involved adding and expanding on their own and each other's existing ideas; (3) there was a gradual shift in Case 3 from a cooperative pattern of interaction to a collaborative pattern, and the threaded discussions were incorporated into the final text; (4) there were no instances of hyperlinks added to connect wiki pages in all the three cases; and (5) students in Cases 1 and 3, edited the grammatical aspects of the text rather than its content (i.e., ideas) and in some cases (e.g., Case 1) individual ownership of the text was established.

The following figure summarises how teachers interacted with students and the main similarities and differences between the three teachers when supporting students' at the socio-cognitive level. There were some similarities between Ms. Susan and Ms. Danah; both teachers provided immediate feedback, which resulted in a structured pattern of S-T or T-S interaction, and did not promote *collaborative dialogue*. They both dominated the editing behaviours and Ms. Susan used the threaded mode to notify her students of her edits. Whilst no *linguaging* instances were observed in Ms. Danah's interventions,

Ms. Susan adopted the *expert role* throughout the activity, answering all the students' language related enquires.

In contrast, Ms. Wesam positioned herself as a *co-learner* and encouraged students to engage in a collaborative dialogue. She used the wiki text mistakes to stimulate students' collaborative dialogue and she modelled editing behaviours to encourage students' editing behaviours.

Figure 6 Socio-cognitive teachers' support



5.5.3 Socio-affective interaction

The socio-affective dimension of an interaction is as significant as the organisational and the socio-cognitive collaboration inherent in it. Socio-affective interaction is concerned with reinforcing group harmony and cohesion through engagement in social interaction, by greeting other group members, encouraging and praising each other's work, and expressing gratitude and other positive feelings. The findings show that each group behaved differently at this level. In Case 2, there were no obvious signs of socio-affective collaboration between Ms. Danah's students. The interaction was focused on the activity; students did not exchange words of encouragement, express feelings in words, or use emoticons. Ms. Susan's students (Case 1) worked individually and although there were a few instances of socio-affective interaction, these only occurred at the end of the activity. Students started to post comments to express their positive feelings about working with the others and their gratitude for each other, and to praise the overall work of the group (see the following extract).

Extract 35 Case 1

Wiki interaction	By	Types of comments/edits
<u>Sarah said at 3:43 p.m. on Apr 22, 2014</u> Thanks Aseel for editing the page colour and the font they are really nice good job dear	S	Thanking + Praising
<u>Salma said at 5:18 p.m. on Apr, 23, 2014</u> Thanks teacher and girls I really enjoyed working here	S	Thanking + Expressing emotions
<u>Reem said at 12:56 p.m. on Apr 24, 2014</u> Me too I feel so happy to finish our project...	S	Expressing emotions
<u>Reem said at 3:21 p.m. on Apr 25, 2014</u> Girls many thanks I really enjoyed working with you I feel so proud of the page	S	Thanking + Expressing emotions
<u>Aseel said at 12:26 a.m. on Apr 27, 2014</u> Me too I did not expect that we are going to write such as long and beautiful poster many thanks my lovely friends looove u all ☺	S	Thanking + Praising + Expressing emotions

In contrast, instances of socio-affective interaction were observed in Case 3. There were instances of greetings, encouragement, praising each other's work and expressing gratitude, and frequent use of emoticons to express their feelings. There was also frequent use of the first person plural pronouns (e.g., *we* and *our* page), suggesting a joint responsibility towards the activity. The use of 'we' not only indicated a collaborative attitude endeavour towards the activity, but also suggested joint histories and learning experiences. The following extract presents some of these S-S posts.

Extract 36 Case 3

Wiki interaction	By	Types of comments/edits
<u>Laila said at 1:33 p.m. on Mar 9, 2014</u> (...) I think it is gonna be interesting to share our ideas her and learn from others waiting you my nice group.	S	Expressing emotions
<u>Laila said at 9:38 p.m. on Mar 18, 2014</u> I am so happy that we are about to write our wiki page (...)	S	Expressing emotions
<u>Laila said at 4:29 p.m. on Mar 26, 2014</u> Girls check what I have just added plz feel free to edit share with me your comments I am happy to receive them ☺ love u all xxx	S	Seeking peer feedback + expressing emotions
<u>Sue said at 3:18 p.m. on Apr 4, 2014</u> Hello my lovely group ☺	S	Greeting
→ <u>Samar said at 6:36 p.m. on Apr 5, 2014</u> hello Sue miss you so much during this weekend ☺ (...)	S	Greeting + Expressing emotions
<u>Laila said at 1:04 p.m. on Apr 21, 2014</u> I remember that we have already taken the word “segregate” last year, I think it is commonly used... segregated=separated I don’t think we need to change it ☺	S	Giving language related feedback

The way that the three teachers intervened in student collaboration at the socio-affective level differed in each case. The following sub-sections explain how each teacher interacted at this level, which could be one factor to explain how students collaborated. Findings highlight how some teachers adopted authoritative roles and rarely encouraged group cohesion (Case 1 and 2), whereas the other teacher adopted a non-authoritative role and constantly encouraged group cohesion (Case 3).

5.5.3.1 Authoritative VS non-authoritative teachers

Ms. Susan’s and Ms. Danah’s behaviours (Cases 1 and 2), on the one hand, suggested authoritative teachers whose interventions focused on getting students to work. They imposed some ideas on their students and their interviews suggested that they still considered themselves superior persons whose ideas and suggestions should be followed and unquestioned by students. Ms. Wesam, on the other hand, was a non-authoritative teacher who encouraged students to manage how to interact and to work with each other as a group.

Ms. Susan (Case 1) and Ms. Danah (Case 2) did not start the activity by socialising with the students (i.e., by greeting them or talking about other social topics); their interventions were work-orientated. As shown in the previous extracts (sections 5.5.1 and 5.5.2), they tended to use an *authoritative tone* and imperatives, warning the students that their work would be checked. Ms. Susan still believed that even in the wiki context, she is the teacher and her ideas should be considered and followed by students. She declared this in the following interview extract.

I know that they will consider my posts because I am their teacher after all (...) I am the teacher, I have to make it clear who should do what (...) I need to post commands; this will help the students to know exactly what I want them to do instead of leaving them working in the wrong way (Ms. Susan, stimulated recall interview).

Ms. Danah started the activity by posting the following comment for some inactive students.

Extract 37 Case 2

Wiki interaction	By	Types of comments/edits
Ms. Danah said at 10:51 p.m. on Mar 18, 2014 Mei and Mohrah you have not participated yet can you write or post at least one comment come in!! I am so angry about you girls	T	Promoting participation + Expressing emotions

In the initial stages of the activity, only Amy and Fai contributed to the wiki page. Mei and Mohrah were passive, as they did not post a single contribution to the wiki page. This passive engagement aroused Ms. Danah's anger and she posted a comment that was directed at them. Ms. Danah's feelings of anger and her comment appeared to direct students towards working directly on their activity. This contrasts with Ms. Wesam's behaviours in Case 3 who intervened interacted socially with her students using a *friendly tone*, as illustrated in the next extract.

Extract 38 Case 3

Wiki interaction	By	Types of comments/edits
<p>Ms. Wesam said at 6:18 p.m. on Mar 7, 2014 Dear my lovely students, today the weather is extremely nice and I would like to remind you that here you are going to work together and I want every group to respect each other's ideas and suggestion. Also don't delete your friend's text unless you have a reason for that and unless you discussed it with your friends first. I am so happy to see that some group has started their works, however, don't be hurry to write your poster you have a plenty of time so think about the quality not the quantity. Please bear in mind we want to produce a coherent and accurate text</p>	T	Greeting + Social talk + Giving task instructions + Promoting group cohesion + Expressing emotions

As shown in the extract, Ms. Wesam started the activity by expressing her feeling about the weather. Her friendly tone is evident with her use of the phrase “*my lovely students.*” Using a friendly tone, she guided students to a number of ground rules that reinforced group cohesion, such as respecting each other’s ideas, suggestions and writing, as well as working as a group. At interview Ms Wesam concurred with this interpretation of her observed online behaviours.

I was trying to show students that I am there ahm, or you know I wanted to be friendly in this informal online context (Ms. Wesam, stimulated recall interview).

Being an authoritative or non-authoritative teacher appeared to influence group cohesion. That is, in Cases 1 and 2, students were responsive only to the teachers, whilst ignoring and not responding to the other group members. They mainly worked individually and rarely interacted as a group who shared feelings, histories and experience. There was no sign of developing social relationships in the online mode, but rather students were concerned mainly with interacting with the teacher about the activity and getting the work done. As shown in previous extracts presented in sections 5.5.1 and 5.5.2, Ms. Susan and Ms. Danah did not encourage students to work as a group and seemed to value individual work over group work.

Out of all the teachers, Ms. Wesam appeared to appreciate group work (as is shown in the following extract). She guided students to respect each other’s work and to work as a group. She valued group work over individual work, a characteristic not apparent in the other two teachers’ behaviours.

Extract 39 Case 3

Wiki interaction	By	Types of comments/edits
<u>Ms. Wesam said at 2:17 p.m. on Mar 15, 2014</u> Where are the rest of the girls, it is a group work (...) could you please join the discussion it is a group work not an individual work	T	Promoting participation + Promoting group cohesion
<u>Ms. Wesam said at 2:50 p.m. on Apr 4, 2014</u> Excellent girls I am so happy with your work so far, keep doing the work together it is really great	T	Encouraging + Expressing emotions + Promoting group cohesion
<u>Ms. Wesam said at 11:51 a.m. on Mar 10, 2014</u> very good you are a good group excellent girls good planning carry on planning your wiki project	T	Encouraging students + Giving task instructions
<u>Ms. Wesam said at 12:58 p.m. on Mar 9, 2014</u> Laila you have to discuss your ideas with your group first and then write , remember you are doing a group activity so work with others	T	Giving task instructions + Promoting group cohesion

Regardless of being *authoritative* and *non-authoritative*, all the three teachers provided positive feedback to the students which was important in motivating them in the activity, as declared by some of the students across the cases:

When we were working online she was encouraging us and this really made me motivated to work online. When the teacher posted, “excellent Fai, you are doing a great job,” this pushed me to write more and do better (Fai, Case 2).

To me it was a kind of motivation; her positive feedback helped me to work more. I mean, appreciating our work was essential and the teacher was there to do so. This helped me to focus on the task and to try to do my best to impress the teacher (Amy, Case 2).

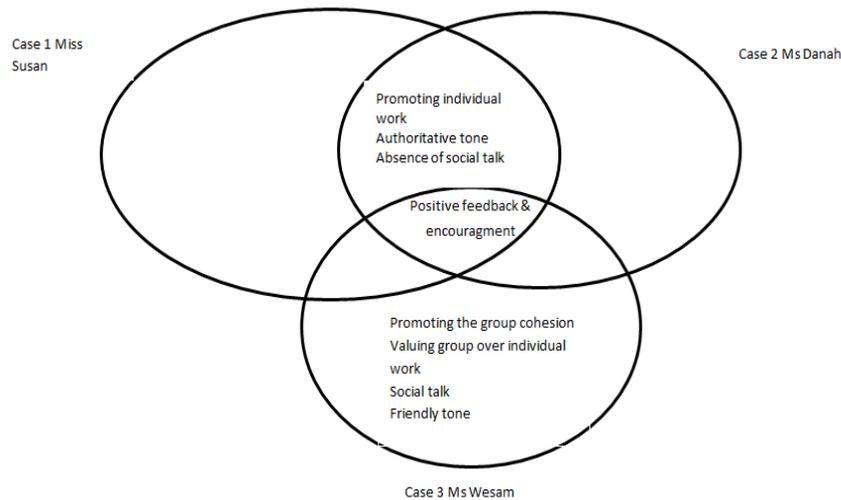
She was always encouraging us. I really like the fact that she mentioned my name and said “Laila you did a great job”, “excellent girls”; these phrases helped me to work harder (Laila, Case 3).

It is really good to have her because you feel motivated when the teacher is looking at the work. This made us feel motivated, especially when she said “good” or “excellent” to our group page, I felt like there was someone who appreciated what we were doing as a group (Sue, Case 3).

Figure 7 illustrates the fact that there are some shared characteristics between Ms. Susan and Ms. Danah in terms of being *authoritative*, appreciating individual rather than group work and focusing on the activity rather than engaging socially with the students.

Ms. Wesam appeared different, since she was the only teacher who valued group over individual work and intervened in a friendly and non-authoritative way. All the three teachers posted positive feedback, which motivated the students to work on the activity.

Figure 7 Socio-affective teachers' support



5.5.3.2 Social relationships

Apart from the online wiki interaction observed, there were some issues that were mentioned by students in all the cases in relation to maintaining group cohesion and social relationships with others. That is, some students across the cases avoided changing other's ideas or criticising them and tried to be as courteous as possible when commenting on another's work, because they did not want to hurt their friends' feelings or embarrass them. These issues may have affected the level of S-S collaboration.

But I avoided editing the content because I wanted to be as polite as I could (Reem, Case 1).

Although as I told you, I did not like some of my friends' ideas about my text but I did not tell them and I left the text as it was, because I did not want to look rude or to hurt her feelings in front of my teacher (Fai, Case 2).

I do not want to look impolite in front of my teacher and the others; that is why I avoided posting negative comments (Amy, Case 2).

I was trying my best to write positive feedback about other people's writing. I did not want to hurt her (she is referring to other group

members), even if I did not like her ideas. I would just say that I like them (Laila, Case 3).

I do not want to embarrass her; I do not want to lose her. I tried as much as I could to be polite with others when working with them. We had to respect their ideas even if we did not like them (Samar, Case 3).

Thus, students appeared to be concerned about their relationships with others when writing collaboratively in the wiki. Although the previous extracts did present some examples of social interaction between students, interviewing them illuminated further issues. That is, students in Cases 1 and 3 acknowledged that writing collaboratively in the wiki maintained their social relationships with others. Consider the following interview quotes for further illustration.

My relationships with them became stronger and better (...) I developed my social relationships with them. For example before writing in the wiki, one of the students was not really close to me, but now we have become very close friends (Samar, Case 3).

I get to know them better ahm because our relationship has developed. Before using a wiki, I had not even worked with these girls (she means her group members), but having them in my group developed my social personal relationships, especially with Samar and Laila (Sue, Case 3).

Also interacting online has broken all formal boundaries and lines; now I feel that my relationship with them has developed (Eman, Case 3).

Although the level of social interaction online between students in Case 1 was limited to the last stage of the activity, interview data show that students felt that their FTF social relationship developed as a result of working online in the wiki. For example, Salma felt that interacting in the wiki helped her to respect other's work and to develop her friendships with others.

The wiki has taught me how to work with others and respect them as group members, because we had to work together. Also, we became friends. Before working in the wiki our relationships were not really strong but after engaging and talking to each other online I felt we became close friends (Salma, Case 1).

Likewise, Reem felt that working together in a wiki activity helped them to keep in touch with others beyond the school's boundaries. This made her feel happy and similar

to Salma, she felt that her friendship with others developed as a result of interacting online.

I feel so happy that I got more friends and we became very close to each other. We helped each other to finish the work; we were working on the same activity in the wiki. We could even communicate and keep in touch at home and we learned together after school; I liked this (Reem, Case 1).

5.6 Summary

This chapter presented a cross-case analysis of how students and teachers interacted in wiki-mediated collaborative writing activities. The cross-case analysis highlighted the similarities and differences in the teachers' behaviours and how this influenced the level of student collaboration. The analysis suggested that Cases 1 and 2 were the least collaborative groups compared with Case 3. The chapter proposed that differences in the level of S-S collaboration were due to the way that the teachers intervened in the wiki activity at the organisational, socio-cognitive and socio-affective levels. In Cases 1 and 2, the teachers dominated student interaction and rarely promoted their collaboration whereas in Case 3, the teacher intervened in way that promoted the level of student collaboration. The next chapter elaborates on what was learnt in this chapter about how teachers could support S-S wiki collaboration and the main factors that could hinder S-S collaboration.

Chapter 6 Discussion

6.1 Overview

Previous wiki research in SL/FL classrooms has emphasised the effectiveness of wiki technology in affording online spaces that promote students' positive collaborative behaviours, whilst engaging in collaborative writing activities. The main findings of this line of research suggest that wikis help students to jointly co-construct the wiki text by adding ideas, expanding and elaborating, editing their own and other's texts, linking wiki pages (Arnold, Ducate, & Kost, 2009, 2012; Aydin & Yildiz, 2014; Bradley et al., 2010; Elola & Oskoz, 2010; Kessler, 2009; Kessler & Bikowski, 2010; Kost, 2011; Lee & Wang, 2013; Li, 2013, 2014; Lund, 2008; Mak & Coniam, 2008; Woo et al., 2011; Woo et al., 2013), and engaging in various collaborative behaviours in the form of *collaborative dialogue* in the threaded discussions (Arnold, Ducate, Lomicka et al., 2009; Kost, 2011; Li, 2012, 2013, 2014; Li & Zhu, 2011; Nami & Marandi, 2013; Nguyen, 2011; Woo et al., 2013). Although all the above mentioned behaviours have been reported, some of the afore mentioned studies (Arnold et al., 2012; Arnold, Ducate, Lomicka et al., 2009; Bradley et al., 2010; Kessler & Bikowski, 2010; Lee & Wang, 2013; Li & Zhu, 2011; Lund, 2008), and other studies (Cole, 2009; Grant, 2009; Judd et al., 2010; Lim et al., 2010; Lund & Smordal, 2006) acknowledge the occurrence of non-collaborative behaviours, low levels of participation, inequality, reluctance to jointly co-construct the wiki text, individual ownership of the text and less focus on form.

Two main arguments arose from analysing S-S interaction in the previous studies. The first one is that there is a tension between the principles of design of the wiki that requires collaboration, and current school practices that adopt an individualistic approach to learning generally, and writing specifically. Based on this argument, researchers have called for more teacher involvement to support student collaboration. The second argument is that, to understand how collaboration unfolds in the wiki context, it is necessary to examine how students negotiate their writing and how they co-construct the wiki text together (Arnold, Ducate, Lomicka et al., 2009; Li, 2013, 2014). To date, in the CALL context, the majority of wiki research has focused on S-S interaction, marginalising the first argument. A few studies have addressed the second argument (Li, 2014; Woo et al., 2013), but they lacked an in-depth focus on teacher interventions.

This thesis aimed to address these literature gaps by exploring how students and teachers interact in wiki-mediated collaborative writing activities, and the effect of teacher interventions on S-S collaboration, examining both levels of interaction, namely the wiki threaded discussion and the editing behaviours in the wiki text mode. The following section starts by discussing the main findings in relation to the first argument (namely teacher interventions and S-S collaboration). The chapter then discusses the usefulness of considering both levels of interaction and how this approach generated richer data and enhanced the understanding of both teacher and student behaviours in this online context.

6.2 S-S wiki collaboration

The analysis of the threaded discussion along with the editing behaviours yielded the following main findings that answer the research questions:

(1) Students exhibited a mixture of collaborative and non-collaborative behaviours at the organisational, socio-cognitive and socio-affective levels using both threaded discussion and text modes. Non-collaborative behaviours such as writing individually, editing and expanding on their own existing texts, no prior planning discussion, refusing other's edits, not replying to others, and being dependent on the teacher by seeking task instructions, as well as teacher permission and feedback on content and language, were predominant in Case 1. Adding new ideas and expanding on each other's existing ideas were observed in Case 2, with little evidence of collaborative behaviours and no evidence of *collaborative dialogue* in the threaded discussion. The majority of *collaborative behaviours* were observed in Case 3, which suggested an inclination towards a more collaborative pattern of interaction. Such behaviours included adding new ideas, expanding on another's existing ideas and correcting each other's text (grammatical mistakes) , planning together, seeking peer permission, seeking and giving feedback on language and content not only from the teacher but also from peers, sharing knowledge, elaborating, seeking confirmation, suggesting, agreeing, acknowledging, and engaging in a social interaction. In other words, evidence of *collaborative dialogue* and language learning in process were observed in Case 3.

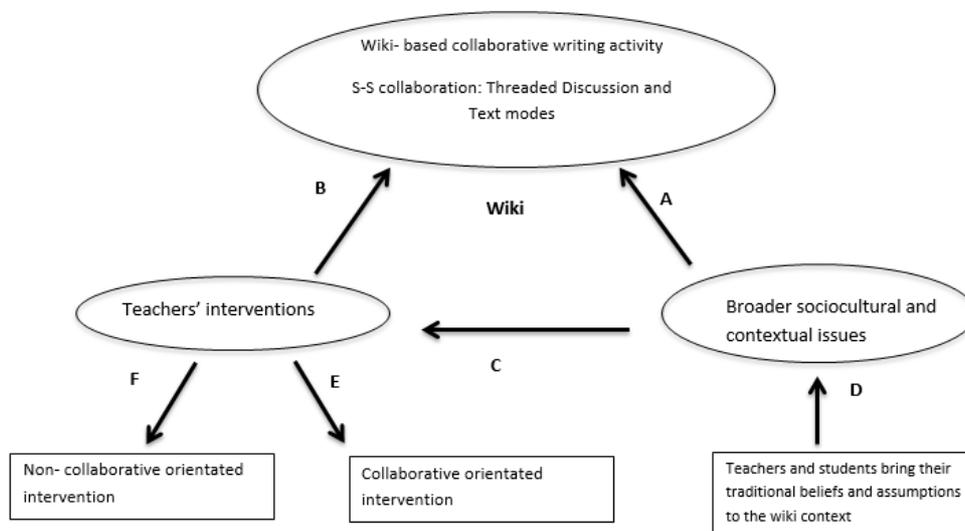
(2) The teachers interacted differently, with some teachers adopting *authoritative* and *non-collaborative orientated interventions* (Cases 1 and 2); they dominated the editing behaviours and intervened to answer students' questions or give task instructions that did not lead to S-S collaboration. Others intervened in a *non-authoritative* and

collaborative-orientated manner (Case 3) by promoting various collaborative behaviours amongst the students.

(3) Inference suggests that the occurrence of non-collaborative behaviours, and the low-level of collaboration between students in Cases 1 and 2, and the high-level of collaboration between students in Case 3, was due to differences in how the teachers interacted with students. Some teacher behaviours hindered collaboration, whereas others promoted collaboration (discussed in section 6.2.2)

By employing computer mediated discourse analysis (CMDA), taking into consideration both levels of interaction and complementing it with interview data, it was found that it was neither the activity (i.e., collaborative writing) nor the technology (i.e., the wiki) that shaped S-S collaboration. Rather, it was the complex online wiki interaction between teachers and students on the micro level (wiki threaded discussion and text modes) and the influence of sociocultural factors on the macro level (see figure 8).

Figure 8 S-S online wiki collaboration



As shown in Figure 8, it was found that S-S wiki collaboration is affected by two factors: (1) the broader sociocultural context of the classroom (arrow A) and the teachers' interventions (arrow B). The contextual factors included the teachers' and students' beliefs about their roles, their perspectives on the effectiveness of peer interactions and their philosophical assumptions about learning and teaching (arrow D). These factors not only shaped the way students interacted with one another and with the

teacher (arrow A), but also the way the teachers intervened (arrow C). The teachers' beliefs about teaching and learning language, previous experience of technology, their roles and their familiarity with the learners' learning styles and preferences, shaped their approach to online wiki intervention. In this study, the data from the threaded discussion and text modes suggested two types of teacher interventions: (1) *collaborative orientated interventions* (arrow E) and, (2) *non-collaborative orientated interventions* (arrow F). These types of interventions affected S-S collaboration (arrow B). That is, when teachers adopted a *collaborative orientated intervention*, students engaged in various collaborative behaviours. However, when teachers adopted a *non-collaborative orientated intervention*, students either worked individually with little evidence of collaboration or exhibited non-collaborative behaviours. The following sub-sections discuss Figure 8 in more detail keeping the broader aim of this research in mind, which is to understand how EFL teachers could intervene in effective ways to support S-S collaboration.

6.2.1 Sociocultural factors

An argument prevalent in the wiki studies is that students' non-collaborative behaviours, and the individualistic approach they adopt when they write with others in the wiki emerge because of the classroom practices, which emphasise assessment of individual achievement and solitary writing activities (Grant, 2009; Lim et al., 2010; Lund & Smordal, 2006; Lund, 2008). This study concurred with this argument, as the students taking part in the wiki activity seemed to import some non-collaborative behaviours from their traditional classrooms, such as being competitive, refusing other's edits, depending on the teacher, ignoring other's posts, and exhibiting an individualistic approach to writing. This study adds another layer to the argument that teachers are as likely as students to import behaviours that are affected by their cognition about teaching and learning, their experience with students' learning preferences generally, and their experience with technology specifically, which may also hinder S-S collaboration. The following sections discuss these findings in more detail.

6.2.1.1 The teachers

This study found that teachers' pedagogical beliefs about the peer review process and collaborative writing activities, their previous experiences with technology and familiarity with students' learning preferences, all influenced the way they mediated S-S wiki interaction, which significantly affected the level of S-S collaboration. The teachers

who hold traditional views of themselves as the main and the most reliable source of knowledge dominated the online activity and structured the activity to serve their predefined pedagogical goals (e.g., getting students to finish the activity, producing an accurate wiki text and providing learners with the correct answers). This seemed to obstruct S-S collaboration. For example, Ms. Susan and Ms. Danah who reported their negative and neutral attitudes towards the peer review process respectively, dominated the online activity by imposing their ideas that were not socially grounded or agreed upon with students, structuring the activity and dominating editing the wiki text. Neither of these teachers gave opportunities for student collaboration; because of their familiarity with the students, they believed that it might be difficult for them to plan their work together and organise the wiki activity. Ms. Susan, who reported the importance of individual performance in exams over collaborative writing activities (as declared in her background interview), intervened in a way that reflected her pedagogical beliefs. That is, she divided the work amongst the students individually and provided individual feedback on each student's sub-section. She declared pre-defined roles for the teacher and students in the wiki context, which reflected a hierarchal power relationship between her as a teacher and the students (Mercer, 1995, 1996). That is, she viewed herself as being responsible for structuring the activity, distributing the work and editing the students' wiki text, whilst writing was the students' responsibility. Ms. Susan reported in the interview that dividing the task and providing individual feedback was something that is favoured by her students; that was why she opted to intervene in a way that could help them carry on the activity.

Ms. Danah's interventions were also affected by her previous experience of technology, and her familiarity with the students' preferences and abilities. That is, she did not encourage student online discussion in the threaded mode due to her negative experience of the asynchronous online communication mode; she believed that students would find interacting in the asynchronous mode boring and difficult because they would have to use English (L2) to interact with others. She also believed that her students might not be able to detect their own or other's errors and it is the teacher's responsibility to correct students' texts to help them in producing accurate wiki text.

In general, both teachers viewed themselves as a figure of authority even in the online wiki context; they practised their roles as teachers who corrected students' texts, gave direct instructions on what to write or how to work, and claimed authority over students' work. In contrast Ms. Wesam, who has a positive view of the peer feedback process and positive attitudes towards collaborative writing activities, intervened in a way that

supported S-S collaboration. She took a *non-authoritative* role; she gave students opportunities to work independently, whilst monitoring their interaction. She trusted and valued students' contributions and encouraged them to feel responsible for their online learning. Her previous experience of how students learn something led her to model behaviours and to gradually release her dominant role. The interview with Ms. Wesam suggested that the extent of her involvement was determined by her familiarity with the students' language abilities. That is, she reported that if she thought that the answer was within her students' language abilities, she would intentionally withhold her answer to promote S-S collaboration.

These findings are similar to those of other studies in FTF contexts. Similar to McDonough's study (2004), teachers expressed their concerns about the peer review process, which, they feared might involve inaccurate knowledge. This is also in line with Hyland and Hyland (2006b), who observed that in FTF classrooms:

Whether teachers decide to (...) establish an equal or hierarchical affiliation or adopt an involved or remote stance, they are at least partly influenced by the dominant ideologies of their institution and the beliefs acquired as a result of their cultural background and educational experience. (Hyland & Hyland, 2006b, p.11)

This study confirmed Hyland and Hyland's argument that even in a context such as a wiki, teachers import their beliefs and ideologies that are largely co-constructed as a result of their experience with the use of technology and their students' learning preferences, that can either promote or hinder S-S collaboration. Not only the teachers, but also their students bring some traditional beliefs that hinder the process of collaboration in some cases.

6.2.1.2 The students

As discussed previously in some studies in FTF and wikis contexts, culture plays an important role in determining the effectiveness of collaboration in the peer review process and collaborative writing activities (Arnold et al., 2012; Carson & Nelson, 1998; Lee, 2010; Lin & Yang, 2011; Nguyen, 2011; Sengupta, 1998; Tsui & Ng, 2000; Zhang, 1995). Whilst previous studies in FTF and wiki contexts have explored ESL/EFL learners from different cultural backgrounds including Chinese, Spanish and Vietnamese, this study adds to the wider literature by showing that EFL learners from Arab cultures (i.e., Kuwaiti) hold similar cultural beliefs that limit the effectiveness of the collaborative process in the wiki context. It also confirms the argument in previous

studies that the degree of student collaboration can be affected by their classroom practices, which emphasise assessment of individual achievement and solitary writing activities (Grant, 2009; Lim et al., 2010; Lund & Smordal, 2006; Lund, 2008). The study also showed that despite the fact that Case 1 learners have the highest English language and ICT skills compared with the other Cases, language competence does not seem to lead to higher collaboration. That is, in Case 3 where learners have lower language competence, students were more willing to collaborate than in Case 1. This could be due to how teachers were supporting the process of collaboration and how learners were responding to each other's accordingly. In Case 3, the teacher was encouraging learners to collaborate whereas other teachers were not (discussed further in section 6.2.2).

In all the three cases, students reported behaviour that seemed to have been transferred from their FTF classroom practices. Although no data were collected relating to their classroom practices, which could possibly weaken this claim, interview data suggest that the Kuwaiti students in general viewed the teachers as representatives of authority who have the right to act on their texts. This finding corroborates research findings in the area of L2 FTF peer review. Similar to Carson and Nelson's (1998) study with Chinese and Spanish ESL learners, and Sengupta's (1998) study with ESL secondary school students in Hong Kong, the Kuwaiti students valued and trusted their teachers' answers and revisions, more than their peers' knowledge. In line with the studies of Paulus (1999), and Deni and Zainal (2011), the students doubted their own and their peers' language proficiency. Some of them participated because they wanted to present themselves as good learners to their teachers. Similar to Tsui and Ng's (2000) findings with secondary school students in Hong Kong, and Hamouda's (2011) study with Saudi students, the Kuwaiti students favoured and preferred teacher feedback, and often incorporated this kind of feedback over their peers' feedback. Agreeing with Yang et al.'s (2006) findings, some students did not accept their peers' feedback until they had consulted the teacher, who according to their views knows better English.

As shown in the wiki extracts and interview data, most of the students sought the teacher's permission and reassurance in their writing and answers. Some students were competitive and worked individually, whilst others refused to accept each other's edits of their texts, and claimed ownership of the wiki text. Similar to students in Sengupta's (1998) study, in Cases 1 and 2, the students believed that correcting the text is the teacher's responsibility rather than their own responsibility. These students' behaviours could possibly have been affected by the wider educational system of the Kuwaiti

context. As discussed in Chapter 2, Kuwaiti government schools are exam-orientated, and teachers are still viewed as the most reliable source of knowledge. Emphasis is placed largely on the importance of individual performance in exams. Some students may have felt that the wiki activity provided them with further opportunities to interact with their teachers beyond the classroom boundaries, which might develop their individual performance.

Although evidence suggests that Case 3 students collaborated, the analysis of the editing behaviours in their interactions indicates that their focus was on the formal aspects of the text (editing grammar rather than the content). Such a finding is not surprising, since even in FTF peer review studies, it has been found that L2 learners focus more on editing form rather than on content (e.g., Deni & Zainal, 2011; Leki, 1990; Paulus, 1990; Villamil & De Guerrero, 1998). Agreeing with Tsui and Ng (2000), students may have experienced cognitive overloads and difficulty in commenting on or discussing macro-text changes, such as changing ideas using English (as mentioned in some students' interview data). Another possible explanation could be related to how writing is taught in this particular sociocultural teaching context, and the way how the teacher modelled how the students should edit the text. As Arnold et al. (2012) posit, focusing on editing form over the content may be due to the rooted in, "students' educational experience where L2 writing assignments are mainly [seen] as a way to assess mastery of linguistic code as opposed to a communicative act" (p.441). It could also possibly be due to the nature of teacher modelling. Ms. Wesam modelled editing the grammatical mistakes rather than encouraging students to change the ideas or meaning. Ms. Wesam's behaviour exhibited a language teacher's concern with accuracy, which has also been reported in previous FTF studies. For example, Truscott (1996), Yang et al. (2006), and Zamel (1995) all found that teachers focus predominantly on correcting the grammar of the students' texts rather than providing feedback on how to improve the content.

In all three cases, students avoided posting criticism or negative feedback on each other's writing. The interview data suggest that Kuwaiti students avoided hurting each other's feelings or embarrassing others in front of the teacher. This is similar to other FTF and wiki research findings in other sociocultural contexts in countries such as China and Vietnam (Lee, 2010; Li, 2012; Lin & Yang, 2011; Nguyen, 2011). The Kuwaiti students valued group harmony and tried to remain polite by flattering each other's work in front of the teacher. Similar to the Carson and Nelson (1998), and Ho and Savignon (2007) studies with Chinese ESL learners, students rarely disagreed or criticised each other's ideas. Although this might promote group cohesion and social

relationships, this could also possibly decrease the level of S-S collaboration at the socio-cognitive level. Some students avoided pointing out other's language mistakes or weak ideas, which could have decreased opportunities for *collaborative dialogue*.

6.2.2 Teacher intervention

One of the main findings of this study is that the way teachers intervened, affected the level of S-S collaboration. The cross-case analysis presented in Chapter 5 highlighted the fact that some teachers' behaviours hindered S-S collaboration in Cases 1 and 2, whilst other behaviours promoted it in Case 3. Behaviours that seemed to promote students' online wiki collaboration were:

- Establishing a wiki culture of collaboration
- Reinforcing a sense of wiki community
- Encouraging student mutual engagement
- Promoting languaging and collaborative dialogue (being a co-learner)
- Modelling editing behaviours.

Behaviours that appeared to hinder collaboration included adopting an authoritative/directive intervention, lack of monitoring of the interaction in the S-S threaded discussions, direct wiki edits, and immediate responses. The following subsections discuss these behaviours in detail. Behaviours that promoted collaboration are discussed along with the behaviours that hindered collaboration.

6.2.2.1 Establishing a wiki culture of collaboration

This study supports researcher claims about the effectiveness of having teachers set *ground rules* in promoting S-S collaboration (De Jong, 2012; Handsfield, 2012; Kim, 2012; Martin-Beltran, 2012; Mercer, 1995, 1996; Mercer & Fisher, 1992; Rojas-Drummond & Mercer, 2003; Warwick et al., 2010). However, this study adds to their arguments that not all types of *ground rules* promote S-S- collaboration, but rather it is the teachers' efforts to establish ground rules that promote a *wiki culture of collaboration*. This is evident from Ms. Susan's ground rules (Case 1) that did not lead to S-S collaboration.

Establishing a wiki culture of collaboration involved explicitly telling students how to behave collaboratively in the wiki text and threaded modes and how to use these levels

of interaction in a *complementary manner*. It involved making the students aware of the importance of having online discussions before writing the text. This involved highlighting behaviours such as planning ideas together, discussing what others have written, avoiding a cumulative style of writing (i.e., adding ideas without engaging with what others have written) and deleting each other's texts without discussion.

In this study, although two teachers lay down *ground rules* for student wiki interaction (Ms. Susan, Case 1 and Ms. Wesam, Case 3), only Ms. Wesam established a *wiki culture of collaboration*, since her ground rules directed students to work collaboratively with others. In this case the teacher was the *discourse guide* for the online community (Mercer, 1995). She utilised the available *mediational tool* (i.e., the wiki front page, threaded mode) to inform the members of the wiki community (i.e., the students) about acceptable and unacceptable wiki behaviours in an explicit manner. She used language as a *mediational tool* to give instructions that guided students towards collaboration (Alexander, 2008a; Mercer, 1995). In contrast to the other two teachers who adopted *official/authoritative* roles (Pifarre & Li, 2012; Rojas-Drummond et al., 2001) in giving instructions to serve their pedagogical goal (i.e., accomplishing the wiki text), Ms. Wesam encouraged students to use language as a *social mode of thinking*: to discuss the wiki text, ask others questions, and to build on other's contributions (Mercer, 1995, 2003). By so doing, she appeared to be an *interactive and dialogic teacher* (Alexander, 2008b; Rojas-Drummond et al., 2008), who guided students towards more collaborative orientated behaviours by fostering peer collaboration in the form of dialogue, as part of the wiki activity culture.

Ms. Wesam's behaviours appeared to help students to understand the types of behaviour expected of them and how to behave in a collaborative manner. At interview, they declared that these ground rules helped them to understand how to work effectively in the wiki. Their online behaviours concurred with their claim; they engaged in *planning talk* or *content discussion* (Cullen et al., 2013; Li, 2013) whereby they took turns posting their suggestions, proposing a specific organisation of the collaborative text, building on each other's ideas, evaluating inconsistencies in each other's suggestions and proposing alternative ideas. They established and maintained a sense of *intersubjectivity* by not only co-constructing a common understanding of the text outline, but also by being open-minded and willing to receive help, and to value the group's contributions (De Guerrero & Villamil, 2000; Pifarre & Staarman, 2011). Furthermore, the students took responsibility for organising their work by initiating the writing activity, seeking help and feedback from those with higher language abilities, and seeking consensus before

starting to write. Similar to the findings of Bradley et al. (2011), and Pifarre and Staarman (2011), students developed a shared understanding of ideas that then guided the writing of their collaborative texts. The process of collaboration was not only evident in the initial stages, but was iterative (i.e., students proposed new ideas, sought feedback from their peers, and transformed ideas into topic sentences).

In Case 3, student collaboration corroborated the majority of wiki research with adult students at the tertiary level (Arnold, Ducate, Lomicka et al., 2009; Bradley et al., 2011; Cullen et al., 2013; Elola & Oskoz, 2010; Kost, 2011; Lee, 2010; Li, 2012, 2013, 2014; Li & Zhu, 2011; Nguyen, 2011) which found evidence of collaboration in the form of articulating ideas, discussing ideas, generating new ideas based on the proposed ones, and evaluating alternatives to reach a common understanding concerning the content of the wiki text at the planning stage. Unlike other wiki research studies (Kost, 2011; Lee & Wang, 2013), the adoption of different roles, such as writer and grammar checker, were not apparent, as students constantly changed roles.

Hence, it can be inferred that because the Case 3 teacher established a wiki culture of collaboration by setting explicit collaborative wiki ground rules with students at the beginning of the wiki activity, students interacted in a collaborative manner. This tentative finding strengthened by the findings of the comparative analysis of S-S collaboration in Case 3 and the other two Cases. As discussed in Chapter 5, there were a few instances of collaborative behaviour between students in Cases 1 and 2. In both cases, students passively engaged with each other in the process of planning the text. They started the wiki text without prior discussion, and made no effort to co-construct common ideas or outlines that would allow the generation of a shared understanding of the content of the text. One tentative explanation for these behaviours could be related to the fact that one of the teachers stepped back and did not guide the students (Ms. Danah, Case 2), whilst the other structured the activity (Ms. Susan, Case 1); the latter guided the students towards more a *cooperative pattern* of interaction by splitting the work (Dillenbourg & Schneider, 1995; Dillenbourg 1999; Oxford, 1997). Although Ms. Susan shared *ground rules* with her students (e.g., using external resources, directing questions to her, and working on their individual sub-topic), her ground rules did not guide students towards working collaboratively, which completely contrasted with Ms. Wesam's efforts to *establish a wiki culture of collaboration*.

In Cases 1 and 2, the teachers made no effort to promote peer collaboration as part of the wiki activity, but rather they used *authoritative talk* to direct the students. Agreeing with

Pifarre and Li (2012), the authoritative talk and highly structured instructions used by the two teachers helped students to keep working on the activity, but at the same time obstructed the level of their collaboration. That is, there were no instances of collaboration when organising the activity; students rarely proposed ideas, evaluated what others had written, or invited others to discuss how the text would be written. These findings differed from Mangenot and Nissen's (2006) observations, in the context of online adult learners, who found that collaboration at the organisational level was the most observed behaviour, due to the low cognitive load this involved. The discrepancy in the observations may not only be because of the nature of the teacher interventions, but also due to the age of the participants, and the differences in the sociocultural context and technology being used. In Cases 1 and 2, school age students may have struggled to organise their work independently in a context such as wiki. In Case 1, the students' preference for teacher division of work corroborates the findings of other studies, including those of wikis and FTF collaborative writing (Al Ajmi & Ali, 2014; Alyousef & Picard, 2011). The dependency on the teacher in the initial stage or during an activity was also a behaviour observed in other studies in FTF and wiki contexts (Chiu, 2004; Mercer & Fisher, 1992; Nami & Marandi, 2013).

The establishment of a wiki culture of collaboration not only involved ground rules that guided students in how to work collaboratively, but it also helped to create a non-threatening online wiki context where students could confidently contribute to the activity and act as a member of the online community. Teachers can create this non-threatening online context by reinforcing a sense of wiki community.

6.2.2.2 Reinforcing a sense of wiki community

Previous studies in FTF and other online contexts have emphasised the importance of socio-affective dimensions in promoting collaboration (Dale, 1994; Donato, 2004; Fung, 2010; Garrison et al., 2000; Hauck & Hampel, 2005; Lamy & Goodfellow, 1999; Li, 2014; Murphy, 2015; Nguyen, 2011). Some researchers argue that teachers play an essential role in promoting a non-threatening social learning environment that can support S-S collaboration at the socio-affective level (De Jong, 2012; Maor, 2003; Murphy, 2015; Smiley & Anton, 2012). This study suggests that the teachers played an important role in promoting a sense of wiki community, by adopting a *non-authoritative tone*, valuing group work over individual work, and interacting socially with students.

As discussed in Chapter 5, there were only a few instances of socio-affective collaborative behaviours in some of the cases where the students worked individually rather than in groups. In Case 1, there were a few instances but these only occurred at the end of the activity. Students started to post comments to express their pleasure in working with the others and their gratitude and praise for the overall work of the group. In contrast, in Case 2, there were no obvious signs of socio-affective collaboration between the students. The interaction was focused on the activity; students rarely exchanged encouragement, expressed feelings in words, or even posted emoticons to express feelings. In both cases, there was frequent use of first and second person pronouns (e.g., *my* work, *your* job) to indicate an individual attitude towards the activity. These findings challenge a number of other wiki studies, which claim that the wiki is a socially-orientated collaborative writing tool that not only helps students to write collaboratively, but also to engage in social comments to reinforce a sense of community (Cullen et al., 2013; Lee, 2010; Li, 2013, 2014; Nguyen, 2011). One reason for the paucity of socio-affective comments in Case 1 and 2, could be the teachers who intervened in an authoritative manner; they exhibited asymmetrical relationships by imposing their ideas, alerting students that the work would be checked by them and rarely interacting socially or adopting a friendly tone when interacting with their students. These teachers' behaviours could have led the students to focus on accomplishing the activity without interacting socio-affectively with the other group members. Arnold, Ducate, Lomicka et al. (2009) argued that in wiki activities, when the leader adopts a directive and dominant role, there is less student collaboration. This study agrees with their argument and suggests that this applies not only to the leader of the group, which could be one of the students, but also when teachers adopt an authoritative and directive role, there is less student collaboration.

An important finding that emerged from analysing Cases 1 and 3 is that despite the fact that there were few instances of socio-affective interaction in Case 1 in the online mode, interview data suggested that students in both cases claimed that interacting in the wiki activity helped them to develop their social relationships with others. This finding supports Li and Zhu's (2011) claim that in the wiki activity, students not only interact to accomplish the writing activity, but also build and reinforce their FTF social relationships.

Socio-affective comments were however observed in Case 3. Similar to other wiki research (Arnold, Ducate, Lomicka et al., 2009; Cullen et al., 2013; Kessler, 2009; Lee, 2010; Li, 2013; Nami & Marandi, 2013), there were instances of greetings,

encouragement, praising each other's work, and expressing gratitude. In line with Li and Zhu's (2011), Li's (2013), and De Guerrero and Villamil's (2000) findings, there was frequent use of the first person plural pronouns (e.g., *we* and *our* page), suggesting a feeling of a joint responsibility towards the activity. The use of *we* not only indicated a collaborative attitude towards the activity, but suggested joint histories and learning experiences (Donato, 2004; Mercer, 1995). Interacting via the wiki allowed the students to discuss previously taught classroom material. In this case Ms. Wesam behaved differently; she adopted a *non-authoritative*, friendly tone and made socially-orientated interventions (Maor, 2003). She greeted students and engaged socially with them using phrases such as, "*my lovely student.*" To reinforce a sense of wiki community, she asked students to respect and treat each other nicely, to appreciate each other's work, and to work together as a group. She did not claim authority or superiority by imposing her ideas, as the other two teachers did, but rather valued the students' ideas and contributions and posted explicit encouragement and positive feedback on their work. She also reinforced the sense of community by linking what had been taught in the FTF classroom and the wiki context. Compared with the other two teachers, there was a frequent use of what Mercer (1995) calls *we statements* to give a sense of shared learning histories to the wiki group.

Similar to Hyland and Hyland (2006b) findings in FTF context, all three teachers posted positive feedback and encouraging words to motivate students to participate in the wiki activity. During the interviews, some students did declare that this positive feedback did motivate them to participate in the activity. This corroborates Zorko's (2009) and Lin and Yang's (2011) findings, who reported that teacher's feedback motivated students to participate in the wiki activities. Among teachers, Ms. Wesam went one step further; not only did she encourage students and post positive feedback, but she also reinforced the group cohesion. She constantly reminded students to work as a group rather than as individuals, and also expressed her positive feeling about their work as a group. Indeed, this teacher's behaviour was essential, since being a collaborative member means recognising other individuals (i.e., group members) as an essential part of the activity, by acknowledging and responding to their contributions in the service of the jointly-constructed goal (Donato, 2004; Li, 2013). This was reinforced by Ms. Wesam not only by explicitly valuing group work over individual work, but also by encouraging students to engage mutually with one another through the threaded mode discussion, as is explained in the following section.

6.2.2.3 Encouraging students' mutual engagement

Woo et al. (2013) noted that when teachers posted comments in the wiki asking students to participate, students responded immediately and contributed to the activity. In this study, it was observed that the teachers used two kinds of instructions: (1) instructing students to participate and (2) instructing students to engage mutually with others. The former refers to the teachers' efforts to encourage inactive students to contribute to the activity, whilst the latter refers to the teachers' endeavours to help students to engage mutually with each other's writing and contributions, in the service of achieving the joint goal (i.e., completing the wiki text). Ms. Susan (Case 1) and Ms. Danah (Case 2) adopted the first type of instruction (i.e., instructed students to participate). This pushed students to participate, as is evident from the data gathered from the students' interviews and their online interaction. As shown in Chapter 5, some students commented that they participated in the activity because the teachers were observing and mentioned them by name. Their online behaviours concurred with such claims; the teachers' posts were followed by student acknowledgment either in the form of writing or a comment in reply. It is evident that this type of teachers' instructions (i.e., instructing students to participate) decreased instances of students acting as *social loafers* (i.e., those who contribute less than their fair share) and *free riders* (i.e., those who do nothing to complete the activity), that have been observed in previous wiki research (Arnold et al., 2012; Arnold, Ducate, Lomicka et al., 2009; Kessler, 2009; Kessler & Bikowski, 2010; Li & Zhu, 2011).

Although these instructions may have increased the level of student participation, this did not necessarily mean that the level of collaboration amongst the students also increased. As discussed in the literature review (sections 3.3 and 3.4.2.1), collaboration is not limited to participating in a collaborative writing activity; it means engaging mutually in a *collaborative dialogue* that allows the pooling of linguistic resources to build knowledge (Swain, 2000, 2006; Swain & Watanabe 2013; Wells & Chang-Wells, 1992). Collaboration in a collaborative writing activity should also reflect the notion of *co-authoring* (Storch, 2005, 2011, 2013a, 2013b). This means that students write together a text that "cannot be reduced to the separate input of an individual" (Storch, 2012, p. 113). The instructions to encourage participation pushed students to participate; however, the students' participation lacked mutuality, which is essential if claiming that collaboration occurred (Storch, 2002). In other words, some students mainly contributed individually under discrete sub-sections and rarely expanded upon or edited other's texts

(Case 1). Furthermore, their threaded discussion did not reflect high mutuality discourse based on what others wrote or said (Cases 1 and 2).

The way that Ms. Wesam interacted differed markedly. She not only encouraged students to participate, but also asked them to engage mutually with what others had written and said (i.e., instructed the students to engage mutually). For example, she often directed the students' attention to what others had said, asked and written in the wiki page. As shown in Chapter 5, these instructions were followed by a number of student responses whereby students engaged in different collaborative behaviours. It seems therefore that, in contrast to Ms. Danah and Ms. Susan who seemed to focus on pushing students to work to accomplish the joint goal (i.e., completing the wiki text), Ms. Wesam focused on the process of what was being written and said, to ensure that students attained a shared understanding. A lack of monitoring of students' mutual engagement was noted in Cases 1 and 2, but was not evident in Case 3. This could be one reason why there was more evidence of collaborative behaviours in Case 3 student interaction than the other two cases.

Referring back to Sociocultural Theory (SCT), the underlying premise is that learning occurs in the process of interacting with others. This requires engaging with the artefacts produced, whether these artefacts are written text or speech (Lantolf & Thorne, 2007; Storch, 2013b). The second type of teacher instruction (i.e., instructing students to engage mutually) seems to align with the SCT perspective. Ms. Wesam promoted S-S collaboration by drawing the students' attention to the artefacts produced, whether it was the threaded discussion or the wiki text. She promoted engagement with the threaded discussion by explicitly asking students to engage in a *collaborative dialogue* by positioning herself as a *co-learner* (section 6.2.2.4) and promoted their engagement with the wiki text by modelling editing behaviours (section 6.2.2.5).

6.2.2.4 Encouraging languaging and collaborative dialogue

According to Swain and Watanabe (2013), *languaging* about language is one of the ways we learn a language. As discussed in Chapter 3, *languaging* is a process whereby learners use language to make meaning and to shape knowledge of the target language. *Languaging* can be private speech (with oneself), or between peers in the form of a *collaborative dialogue*. Some of the FTF and other online context studies have found that teachers play a significant role in promoting collaboration generally and *collaborative dialogue* specifically (e.g., Ding et al., 2007; Lamy & Goodfellow, 1999;

Martin-Beltran, 2012; Mercer, 1996; Rojas-Drummond & Mercer, 2003; Webb, 2009; Wells & Chang-Wells, 1992; Yoon & Kim, 2012). They have observed that teachers' open questions and the redirecting of questions to other group members were effective strategies in promoting S-S collaboration. Other studies have found that teachers lack the necessary skills to promote effective collaboration (e.g., Mangenot & Nissen, 2006; Pifarre & Li, 2012; Rojas-Drummond et al., 2001). Some of these studies have reported that teachers were authoritative, provided immediate answers to students' questions and rarely encouraged S-S collaboration at the socio-cognitive level.

This study's findings concurred with other researchers' findings; even in a collaborative orientated context such as a wiki, where S-S collaboration has to be emphasised, some teachers were able to promote S-S *collaborative dialogue* whilst others were not. Expanding on this finding, this study proposes that S-S *collaborative dialogue* in the wiki context is supported by teachers who position themselves as *co-learners*, and who use the wiki text mistakes as a stimulus for promoting *collaborative dialogue*. It also suggests that immediate teacher responses or the adoption of an *expert/novice* pattern of interaction could hinder S-S *collaborative dialogue*.

Out of the three cases, evidence of *collaborative dialogue* was observed in Case 3. The students used language as a *mediational tool* to question their own and each other's language use. They engaged in a high-level of mutual and reciprocal discourse, taking turns posting their views and ideas in the threaded discussion. Their discussion involved some aspects of *collaborative dialogue*; the students questioned their own and each other's language use (e.g., vocabulary use and grammar), gave each other feedback, and responded to comments. They engaged *epistemically* with the text by reading it, commenting on it and discussing its content and grammar with others (Wells & Chang-Wells, 1992). They shared knowledge, assessed each other's contributions, provided suggestions, and elaborated on information given to co-construct new knowledge. Some students seemed to negotiate knowledge within their *Zone of Proximal Development* (ZPD) jointly with others to overcome their linguistics gaps. There were instances of high-level students assisting low-level students in the process of collaborative writing. With the assistance of their peers, some students were able to bridge the gap between what they could achieve individually and what they could do with the assistance of others (De Guerrero & Villamil, 2000; Li & Zhu, 2011; Lund, 2008; Oxford, 1997). The interaction was multidirectional and student-centred, with a few instances of T-S and S-T interaction. Similar to other wiki research findings (Lee, 2010; Li, 2013, 2014; Nami & Marandi, 2013; Nguyen, 2011), students' *collaborative dialogue* was not limited to

one-to-one interaction (i.e., a feedback seeking post followed by a single feedback giving post), but rather there were instances of one-to-many (i.e., a feedback seeking post being followed by multiple responses from different students). This suggests student engagement in what Gutierrez (2006) called high quality collaboration, since there were instances of assistance between more than two students in the process of solving the linguistic gap (i.e., *collective scaffolding*). The sharing of linguistic knowledge transformed individual knowledge into distributed knowledge (Nami & Marandi, 2013). Case 3 students seemed to work as a *collective group*, (Donato, 1994) interacting in a *collectively contributing/mutually supportive* pattern (Li, 2013, 2014; Li & Zhu, 2011). They contributed to the activity, and engaged mutually with what others wrote and said (Storch, 2001b, 2002). These positive collaborative behaviours have also been reported in other wiki studies, which have identified instances of *collaborative dialogue* and *collective scaffolding* (e.g., Bradley et al., 2010; Bradley et al., 2011; Elola & Oskoz, 2010; Kost, 2011; Li, 2013, 2014; Li & Zhu, 2011; Nami & Marandi, 2013; Nguyen, 2011; Woo et al., 2013). Case 3 findings, however, differed from Case 1 and 2, and other wiki research, which reported little evidence of collaborative behaviours within threaded discussions (Cole, 2009; Grant, 2009; Lim et al., 2010; Lund & Smordal, 2006).

Ms. Wesam's behaviours appeared to have encouraged students to engage in this *collaborative dialogue*. She used the wiki text as a stimulus to generate instances of *talking about the text* in the threaded discussion (Wells & Chang-Wells, 1992). That is, she helped students to engage *epistemically* with the text by pointing out the students' wiki textual mistakes, and by asking them to talk about these mistakes and to jointly find solutions. This not only directed the students' attention to their mistakes, but also helped them to identify gaps in their linguistic knowledge. These gaps were then negotiated with other group members in the form of a *collaborative dialogue*. When students directed language related questions to Ms. Wesam, she did not transmit knowledge in a top down manner by immediately answering their posts, but positioned herself as a *co-learner*, asking students questions about their language use, and showing an interest in learning the answers (Martin-Beltran, 2012). At interview, the students declared that these teacher behaviours encouraged them to engage with each other's writing and posts, since to be able to respond there was a need to read and engage with what others had written or said.

In Cases 1 and 2, the interaction between the teachers and the students differed. In Case 2, there was a complete absence of *linguaging*, not only between the students, but also

between Ms. Danah and her students. This might be because some students faced difficulties in communicating and asking questions in English (as declared in interview data). Ms. Danah (Case 2) did not encourage the students to engage in a *collaborative dialogue*; in contrast to Ms. Wesam (Case 3), she never used the wiki-threaded mode to notify students about their errors in language use. In Ms. Susan's class (Case 1), there were instances of *linguaging*. However, these were mainly directed at the teacher, rather than at other peers. The interaction reveals the predominance of a structured pattern, i.e., student initiation seeking teacher's language related feedback - teacher's response. At interview, the students reported that they directed most of their questions to their teacher because they trusted and valued her feedback more than their peers' feedback (as discussed previously in section 6.2.1.2). When students engaged in *linguaging*, by questioning each other's language use, they were unable to engage in what Swain (2000) termed *collaborative dialogue*; they were unable to collaborate to co-construct knowledge that extended beyond the individual level. There were also some examples of non-collaborative behaviours, such as the predominance of instances of seeking help and feedback from the teacher rather than their peers, refusing other's edits, claiming individual ownership of the text, and disengaging from other's contributions. To some extent, these behaviours resemble Mercer's (1995, 1996) description of *disputational talk* in a FTF classroom, with students disagreeing with each other, ignoring one another's suggestions and rarely engaging in collaborative behaviours.

The behaviours in Cases 1 and 2 were also observed in other wiki research with students in school and tertiary contexts (Cole, 2009; Grant, 2009; Judd et al., 2010; Li & Zhu, 2011; Lund & Smordal, 2006). These studies reported instances of non-reciprocal interaction, refusing other's edits, claiming authority over the text, disengagement from other's posts in the threaded wiki discussion, and a lack of discussion amongst students. Similar to the students in Arnold, Ducate, Lomicka et al.'s (2009) and Cullen et al.'s (2013) research, when students exhibited some collaborative behaviour, this was limited to seeking and giving feedback at a basic level. Students in both cases appeared to interact in what Donato (1994) described as a *loosely knit group*; students worked individually and they rarely engaged with one other or assisted one other in solving a problem (i.e., *collective scaffolding*). Using the terminologies of Storch (2002) and Tan et al. (2010), they worked cooperatively rather than collaboratively. This is evident from their efforts to contribute to the wiki activity without a willingness to engage mutually with what others had said, proposed or written.

In general, in Case 1 and Case 2, the interaction was structured as either teacher initiation - student response, or student initiation - teacher response. Agreeing with Mercer (1995), and Pifarre and Li (2012) with regards to the limitations of the initiation-response- feedback (IRF) sequence observed in FTF classrooms, the structured pattern of initiation-response that occurred in this study between Ms. Susan and Ms. Danah and their students appeared to limit opportunities for S-S collaboration in the wiki context. Neither of the teachers intervened specifically to promote S-S collaboration; their interventions were to answer students' questions or to fulfil managerial/organisational roles. Both teachers were directive and authoritative, exhibiting *expert/novice* and *authoritative/responsive* patterns when interacting with students. That is, teachers assumed authority and impose their ideas on students' text and students were very responsive to them. Furthermore, the teachers transmitted knowledge to the novices (i.e., the students) and encouraged them to contribute to the activity. Although the *authoritative/responsive* and *expert/novice* patterns have been observed in studies of peer interaction (Li & Zhu, 2011; Storch, 2002), what was observed between teacher and students in Cases 1 and 2 of this study resembled, to some degree, such patterns of interaction. There were no observed instances of the teachers attempting to promote S-S *collaborative dialogue* in relation to the artefacts produced (whether spoken or written), because the teachers believed that the students would get an accurate answer from them rather than from their peers (as mentioned in Ms. Susan's interview data). This is evident from the teachers' passive reaction to instances of non-reciprocal student interaction that was observed in the threaded discussion, and from the students' dependency on the teachers to receive an answer.

6.2.2.5 Co-Constructing the wiki text and modelling editing behaviours

This study found that direct edits (i.e., the provision of the correct form by the teacher to the students by editing their wiki text) decreased instances of student editing behaviours, increased dependency on the teachers, and caused instances of refusing another's edits. Conversely, modelling editing behaviours and encouraging students to edit their own and other's wiki texts promoted a level of S-S collaboration in the text mode.

Unlike other wiki research findings, which reported no visible interaction (Bradley et al., 2010; Cole, 2009) or fewer than two contributions or edits per student (Alyousef and Picard, 2011; Arnold et al., 2012; Cole, 2009; Judd et al., 2010; Kessler, 2009; Kessler & Bikowski, 2010), in this study students wrote frequently on the wiki page. In Case 1, students worked cooperatively, in a parallel mode, on separate sub-topics (Bradley et al.,

2010; Storch, 2005, 2013a; Tan et al., 2010). There was a clear division of labour whilst writing the wiki text. Although in the initial stages there were few instances of co-construction by expanding on another's ideas, these instances faded when the students started working on their individual parts. In Case 2, the interaction differed to some extent, as the students co-constructed the wiki text and there was no clear-cut division of work. They engaged in frequent writing behaviours, such as adding new ideas and expanding on their own or other's existing ideas (i.e., the text that was written by the original writer, or the text was written by other group members).

In Case 1, although there were collaborative initiatives to correct other's texts, this writing behaviour met with refusal. Furthermore, although in the threaded discussion, the students exchanged feedback on their writing, the analysis of their editing behaviour revealed a tendency to ignore other's suggestions, and what was discussed was rarely incorporated into their texts (as is discussed in section 6.3). The findings from Cases 1 and 2 are in line with those of other wiki studies, which report a frequent occurrence of adding ideas over other writing behaviours (Alyousef & Picard, 2011; Kessler & Bikowski, 2010; Lim et al., 2010; Lund & Smordal, 2006; Mak & Coniam, 2008; Woo et al., 2011). In addition, these observations concur with other researchers' findings (Arnold, Ducate, & Kost, 2009, 2012; Bradley et al., 2010) in terms of reports that students work cooperatively, adding ideas, without editing each other's texts, and that quarrels and refusals occurs as a result of other's edits (Grant, 2009).

As in Cases 1 and 2, and other wiki research studies (e.g., Mak and Coniam, 2008), at the beginning of the activity, Case 3 students limited themselves to adding ideas onto the wiki page. However, the students then gradually started editing and expanding on their own and each other's texts. This suggests a gradual shift from cooperative to collaborative writing. This gradual shift has also been observed in other wiki research (Lund, 2008; Mak & Coniam, 2008), which has found that students gradually become collaborative, expanding and editing each other's writing, and creating links inviting others to expand on what has been written. Unlike Case 1, there were no instances of refusal of other's edits or ignoring other's suggestions. Rather, students expressed their acceptance of other's editing behaviours, incorporating other's suggestions into the final text, and editing the text based on collective threaded discussions. Such observations have also been reported in other wiki research, within the higher education context (Arnold, Ducate, & Kost, 2009, 2012; Aydin & Yildiz, 2014; Bradley et al., 2010; Kessler, 2009; Kessler & Bikowski, 2010; Kost, 2011) and the school context (Woo, 2013; Woo et al., 2011; Woo et al., 2013).

There were, however, no instances of adding hyperlinks to connect wiki pages in any of the three cases, which contrasts with other similar studies (Kessler & Bikowski, 2010; Lund, 2008; Yates, 2008). Here, the students mainly engaged in what Lund (2008) terms a *local content development activity* (i.e., writing together on the wiki page in a group) rather than engaging in *distributed collectively generated networks* (i.e., creating links that invite others to contribute). One tentative explanation for this might be the novelty of using a wiki in the classroom. On the training evaluation form (see Appendix P), the students reported that the wiki skill they most lacked confidence in was linking wiki pages. Therefore, they may have needed more training in linking pages in the wiki.

Observations of the teachers' online interactions indicate that all three teachers edited students' wiki texts; however, their approaches differed, which could be one possible factor for the variations amongst the students. For example, Ms. Susan and Ms. Danah (Case 1 and Case 2) adopted the role of editor throughout the activity. Similar to what occurred in the studies of Saito (1994) and Ferris (2006) in FTF contexts, they adopted the approach of giving direct feedback or edits, whereby they provided the correct form for students' wiki text mistakes. Although both teachers encouraged students to edit their own texts, the page history data show they did most of the editing. Agreeing with Saito's and Ferris's arguments, this type of teacher's feedback obstructed students' opportunities to engage collaboratively with their own or other's errors. Ms. Wesam edited students' texts in the initial stages; however, she eventually and explicitly asked them to edit their own and each other's texts (i.e., modelling). Two explanations could be provided to illustrate the differences between the teachers' editing behaviours: (1) the effect of the pedagogical training they received and, (2) their pedagogical beliefs as teachers. As discussed in Chapter 2, teachers in Kuwaiti schools receive pedagogical training that encourages them to adopt three types of feedback, namely teacher feedback, peer feedback and self-editing. Depending on the level of students' language abilities, teachers can adopt one or a combination of these types. Ms. Susan and Ms. Danah may have felt that teacher feedback is better than other types of feedback in the wiki context. Interview data provided a clearer explanation, as they suggested that the teachers held different pedagogical beliefs about the process of peer review and collaborative writing activities. For example, Ms. Susan (Case 1) and Ms. Danah (Case 2) believed that teachers are the most reliable source of knowledge, and that it is their responsibility to help students write accurately. Ms. Susan has a hierarchical view of the role of teachers and students; she views revising the text as one of her duties as a teacher. Ms. Wesam tried to model editing behaviour; declaring that the novelty of wiki technology in her classroom required the teacher's active participation, as students need to be shown that

editing is part of the activity and acceptable behaviour. She also constantly and explicitly asked students to check and edit what others had written.

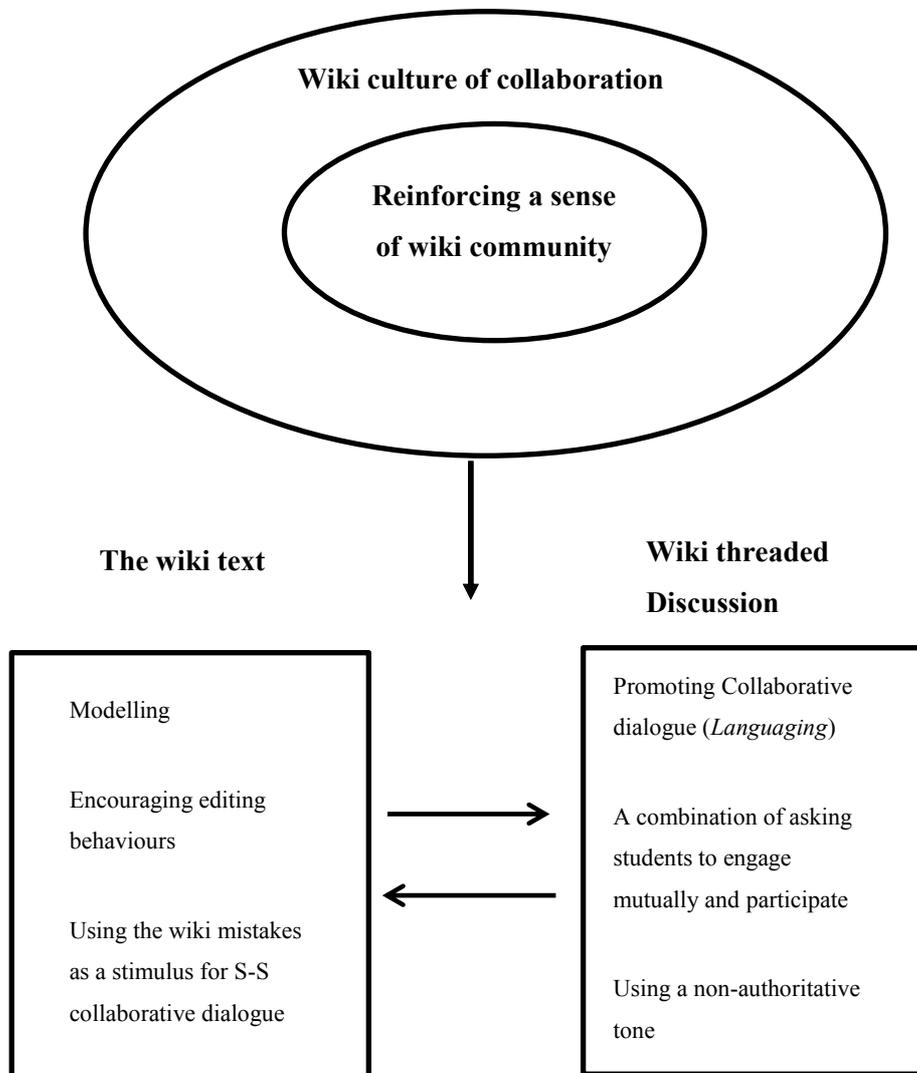
Similar to other studies in FTF contexts (Kim, 2012; Martin-Beltran, 2012; Rojas-Drummond et al., 2001), Ms. Wesam showed students how mistakes can be opportunities for learning and encouraged students to adopt editing behaviours. In contrast to other wiki research findings, which reported a lack of editing of other's texts when the teacher was present (e.g., Arnold et al., 2012), in Case 3 there were instances of collaboration between students who edited their own and each other's existing wiki texts. In addition, from a sociocultural perspective, evidence of internalising linguistic knowledge was observed when one student used the passive voice independently to correct another's text (as is discussed in section 6.3).

Therefore, it can be argued that the teacher's modelling of editing behaviours helped students to collaborate in the text mode in Case 3. This contrasted with the other two cases, where a low-level of editing was observed not only of other's texts but also of students' own texts. As in other wiki studies, issues of individual ownership of the text and reluctance to edit other's texts (Alyousef & Picard, 2011; Arnold et al., 2012; Lim et al., 2010; Lund, 2008) were observed in Cases 1 and 2. There was also an obvious reluctance to participate in editing behaviours and a great dependence on the teachers to edit the text. It appears that the teachers' direct wiki edits decreased instances of S-S editing behaviours and accordingly caused instances of refusing other's edits. This is evident not only from the low-level of student editing behaviour observed, and the instances of refusal in the threaded modes, but also from interview data, where students acknowledged their complete dependence on the teachers' edits. In contrast, this was not the case in Case 3, as there were instances of acceptance of other's edits.

Figure 9 summarises the collaboration-orientated teacher interventions, which starts broadly with reinforcing the skills that are required in any collaborative learning context, to others that are required specifically in the language learning context. It emphasises the fact that, in addition to reinforcing a culture of collaboration and wiki community, teachers need to consider the artefacts produced at the threaded discussion and wiki text levels. In the threaded mode, this can be done by being a co-learner to promote *collaborative dialogue*. It also can be promoted by adopting two instructional strategies, namely instructing students to participate, instructing them to engage mutually with each other and using a *non-authoritative tone* when interacting with students. In the text mode, this can be achieved by modelling editing behaviours, encouraging students to

engage in such behaviours, and by using the wiki text as a stimulus to promote S-S collaborative dialogue.

Figure 9 Teacher collaboration-orientated interventions



6.3 Methodological insights

Examining the S-S interaction and teacher interventions in both threaded discussion and text modes (i.e., editing behaviours) provided a full picture of how students and teachers used these two modes of interaction in a *complementary manner* to accomplish the activity. This analytical approach not only allowed the examination of the characteristics of students' collaborative and non-collaborative behaviours in written discourse (i.e., threaded discussion), but also highlighted actions that were taken in the text (i.e., editing behaviours). Examining these two modes was important since, as discussed earlier, collaboration is not limited to engaging in a joint activity and interacting verbally, but also comprises the learners' actions towards other's suggestions or contributions (Arnold, Ducate, Lomicka et al., 2009; Beatty & Nunan, 2004; De Guerrero & Villamil, 2000; Donato, 2004; Li, 2013, 2014; Nelson & Murphy, 1993). To be able to identify these actions, it was necessary to consider the technological facets of the medium of interaction, by tracking the students' editing behaviours to see whether the things that were discussed were incorporated into the final text.

This approach also allowed a comprehensive understanding of whether or not students were truly collaborating in the collaborative writing activity. In some cases, students' discussions suggested their inclination to be collaborative by seeking and giving feedback on each other's writing, however a closer examination of their writing behaviours contradicted this, as it was evident that they were neither editing nor incorporating other's suggestions into their final text (see the following extract as an example).

Extract 40 Case 1

Wiki interaction	By	Types of comments/edits
Aseel wrote at 9:20 p.m. on Apr 7, 2014 <u>(...) Also in Eid celebration , childrens get some money from neighbours, relatives and people around them. This money called "Al Eidiah" and it is given to the childrens when they greet adults and older people. As a way of showing happiness and great respect to this holy celebration, people gave childrens money to make them feel happy during this celebration. Childrens feel happy and they spend their money in buying sweets and toys(...)</u>	S	Expanding on own existing ideas
Aseel said at 9:21 p.m. on Apr 7, 2014 Girls I wrote a section on Eid celebration can anyone help me with some more ideas? Suggest and I will write them	S	Seeking peer help
→ Sarah said at 1:45 p.m. on Apr 8, 2014 I read your section it is really good and interesting you can focus on traditional clothes for men and women in Eid I think it will add some interesting points.	S	Giving feedback + Suggesting
Aseel wrote at 12:42 a.m. on Apr 21, 2014 <u>other celebration is Eid Aladha which is only celebrated after a pilgrim return (...), all people celebrated Eid for three days (...)</u>	S	Expanding on own existing ideas
Salma said at 3:44 p.m. on Apr 18, 2014 Girls I have completed the introductory section can you tell me how it looks?	S	Seeking peer feedback
Salma wrote at 3:42 p.m. on Apr 18, 2014 <u>Most Kuwaiti men gather in "Al Dewaniya" which is a reception room in the house and separated from women's place. Al Dewaniya is an indispensable feature of kuwaiti social life. Only men are presented in Al Dewaniya and they sit together or the sofa or on the floor and talk casually and exchanges greetings. The owner of AlDewaniya should be hospitable and should entertainment his guests. Usually when gathering in Al Dewaniya, kuwaiti men wear formal clothes in formal occasions but some young men nowadays wear casual clothes.</u>	S	Adding new ideas
→ Aseel said at 12:35 p.m. on Apr 19, 2014 It is really good especially the sentences about Al Dewaniya but I think you have to add a conclude sentence stating that “ in the next section the traditional clothes will be presented and discussed” I am saying this because I think in this way the ideas will be related together. But it is really good I like it ☺	S	Giving feedback + Elaborating + Suggesting+ Expressing emotions

In Case 1, despite Sarah’s suggestions for Aseel to write about the traditional clothes of men and women at Eid, the final wiki text showed that Aseel made no effort to incorporate Sarah’s suggestions, but rather she wrote about the other well-known religious celebration “*Eid Al Adha.*” Likewise, Salma was not only passive in replying to Aseel’s suggestion in the threaded mode, but also the final text did not demonstrate incorporation of Aseel’s suggestions.

Extract 41 presents another example. If the analysis had been carried out solely of the text mode, it would have indicated a high level of collaboration marked by the

correction of other's existing text. An examination of the threaded discussion, however, showed non-collaborative behaviours between students who had different levels of language ability (i.e., refusing other's edits and claiming individual ownership of the text).

Extract 41 Case 1

Wiki interaction	By	Types of comments/edits
<u>Reem wrote at 5:11 p.m. on Apr 1, 2014</u> (...)marriage as an important occasion. Lots of Many money is usually spend creed. In Kuwaiti culture, the family families used to choose the couples see each other's in on the marriage day of marriage(...)	S	Correcting another's existing text



Wiki interaction	By	Types of comments/edits
<u>Sarah said at 5: 22 p.m. on Apr 1, 2014</u> Reem stop editing my section in the wrong way, I noticed that my section has edited by you and there were some mistakes please work on your own text	S	Refusing
→ <u>Ms. Susan said at 5:39 p.m. on Apr 2, 2014</u> Stop annoying each other's and FOCUS ON THE TASK!	T	Giving task instructions

From extracts 40 and 41, it seems that in Case 1, students engaged in a peer review process rather than a collaborative writing activity. As presented in these extracts and the interview data presented in Chapter 5, students claimed ownership of the text and rarely accepted or incorporated other's suggestions into their final text. As discussed in Chapter 3 (section 3.4.2), there are essential differences between collaborative writing and peer review activities. As Storch (2005), Nelson and Murphy (1993) and Tsui and Ng, (2000) suggested, in peer review the writer owns the text and other students have little power to change it. Other peers may give comments and feedback, but it is the writer's decision whether to consider them or not. Therefore, it can be said that the text and the threaded mode interaction revealed that students in Case 1 worked cooperatively and engaged in a peer review process rather than a truly collaborative writing activity, which requires being more receptive to peers' suggestions and collectively owning the text.

Conversely, extract 42 (Case 2) suggests that the students ignored each other's suggestions in the threaded mode. Their text mode interaction, however, indicated

collaborative behaviours since they incorporated what had been suggested by Fai into the final text.

Extract 42 Case 2

Wiki interaction	By	Types of comments/edits
<u>Fai said at 6:40 p.m. on Mar 16, 2014</u> Hi girls I really struggle to choose among the restaurants, can we decide and agree on the names of restaurants?? Wait your ideas	S	Greeting + Seeking peer feedback + Organising the work
<u>Fai said at 11:07 a.m. on Mar 17, 2014</u> Okay girls I thought about it, I suggest to write about the main international cuisines such as Kuwaiti food, fast food, Lebanese food and Chinese food , any ideas??	S	Suggesting + Organising the work + Seeking peer feedback



Wiki interaction	By	Types of comments/edits
→ <u>Amy wrote at 11:15 a.m. on Mar 18, 2014</u> (...) In our wiki page, you will present these restaurants and the kind of food they offer. <u>Kuwaiti food :</u> <u>Kuwaiti cuisine is very important part of the Kuwaiti culture. The main meal in Kuwait involves fish, meat and chicken.</u>	S	Expanding on another's existing ideas
→ <u>Amy wrote at 11:33 a.m. on March 18, 2014</u> (...) fish, meat and chicken. <u>On any Kuwaiti menu you'll find a collection of delicious dishes, each one uneaque in taste, flavour and arema. And chances are that many of irresistibile servings will be prepared according to the most popular style of cooking, the 'tabeekh'(...)</u>	S	Expanding on own existing ideas
→ <u>Mei wrote at 1.21 p.m. on Mar 22, 2014</u> <u>labanese food:</u> <u>in Kuwait, there are many delicious labanese restaurants where you (...) can enjoy the sea view and nice weather. The labanese food involves (...) kebab.</u>	S	Adding new ideas
→ <u>Mohrah wrote at 1:32 p.m. on Mar 25, 2014</u> <u>Also, there are many other labanese food that you can enjoy such as hummus and araise. You can go and reserve table for you and your family or friends or take your order as a take way and enjoy your meal at home.</u>	S	Expanding on another's existing ideas

This analytical approach also allowed the formation of a picture of how students engaged *epistemically* with the text by identifying instances of *talking about the text* (Wells & Chang-Wells, 1992). For example, extract 43 below reveals high-level collaboration where students engaged *epistemically*, elaborating on each other's ideas

and co-constructing content knowledge (i.e., ideas about the topic) through the threaded discussion. Their writing behaviours reveal an inclination to collaborate, since the ideas discussed were incorporated into the final text.

Extract 43 Case 3

Wiki interaction	By	Types of comments/edits
<p><u>Laila said at 2:41 p.m. on Apr 11, 2014</u> Girls I know that we have not planned to write anything about dress in the Kuwaiti culture but after reading the page I feel that it needs some addition especially that if you are a tourist you certainly want to know what to wear when visit a country such as Kuwait , therefore, I feel that we need to add a section about Dress in the Kuwaiti culture. I added the sub-title but need help with organising and generating some interesting ideas ...any thoughts ?</p>	S	Organising the work + Suggesting+ Seeking peer feedback
<p><u>Ms. Wesam said at 3:19 p.m. on Apr 11, 2014</u> come in girls share your ideas with Laila, you are about to finish your page !</p>	T	Promoting giving feedback + Eliciting ideas
<p>→ <u>Sue said at 5:08 p.m. Apr 11, 2014</u> yes I think It can be an interesting point, what about starting the first paragraph writing saying that we have two kinds of dress modern western style and traditional clothes then we can write in details about these ?? what do you think?</p>	S	Giving feedback + Elaborating + Seeking peers feedback
<p>→ <u>Samar said at 10:38 p.m. on Apr 11, 2014</u> Yes I agree what about writing the following sentence as s topic sentence " Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes" This is the main thesis statement shall I write it ??</p>	S	Agreeing + Suggesting+ Elaborating+ Seeking peer permission
<p>→ <u>Laila said at 1:56 p.m. on Apr 12, 2014</u> It is really a good topic sentence Samar, start writing the section and I will add my ideas latter on when I read what you have written</p>	S	Giving feedback + Organising the work



Wiki interaction	By	Types of comments/edits
<p><u>Samar wrote at 9:16 p.m. on Apr 12, 2014</u> <u>Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes.</u></p>	S	Adding new ideas
<p><u>Laila wrote at 8:56 p.m. on Apr 13, 2014</u> <u>The formal traditional clothes for women is wearing "abaia" which means a large black piece of clothing that covers women body and they can wear it after wearing their normal clothes. In addition, as Islamic country, most women in the Kuwaiti society cover their hair with a scarfwhich called in Kuwaiti dialect "Malfa'a". It can be colourful and should cover the women's hair.</u></p>	S	Expanding on another's existing ideas

Extract 44 represents another instance of how students engaged in a *collaborative dialogue* by reflecting on each other's linguistic knowledge; together they were able to

pool each other's linguistic resources and collectively assist each other (i.e., *collective scaffolding*) in the threaded discussion (Donato, 1994; Swain & Watanabe 2013). Analysis of the text mode confirmed that students worked in a collaborative manner, since students edited the collaborative text according to their collective threaded discussion.

Extract 44 Case 3

Wiki interaction	By	Types of comments /edits
<p><u>Laila wrote at 10:16 p.m. on Apr 20, 2014</u> <u>Indeed, the Kuwaiti wedding party has special features and people like attend wedding, because they can spend very interesting times and meet all their friends and families. Kuwaiti wedding is not like other cultures, men and women are segregate and dont meet in wedding, but rather, men have seperated hall and women have other hall and only the groom and his families (father, brother, uncles) can enter the women wedding hall to take his bride.</u></p>	S	Expanding on own existing ideas



Wiki interaction	By	Types of comments /edits
<p><u>Ms. Wesam said at 12:45 a.m. on Apr 21, 2014</u> Girls Laila has added lots of sentences can anyone read it and edit her writing I noted some grammatical mistakes it would be nice to discuss these mistakes.</p>	T	Promoting giving language related feedback + Promoting editing behaviours
<p>→ <u>Samar said at 11:28 a.m. on Apr 21, 2014</u> I have checked that teacher I think when writing two verbs we have to add “ing” so rather than writing like attend we have to write like attending or like to attend. also I am not sure how accurate is this sentence “men and women are segregate”... honestly I don’t understand this point but generally the information is really good</p>	S	Giving language related feedback + Giving feedback
<p>→ <u>Eman said at 12:17 p.m. on Apr21, 2014</u> I think “like attending is more accurate but I also did not understand the “segregate” but I checked that in the dictionary it means <u>مفصل</u> do you think we can use other vocabulary?</p>	S	Giving language related feedback + Seeking peer language related feedback
<p>→ <u>Laila said at 1:04 p.m. on Apr 21, 2014</u> I remember that we have already taken the word “segregate” last year, I think it is commonly used.. segregated=separated I don’t think we need to change it ☺</p>	S	Giving language related feedback
<p>→ <u>Sue said at 2:57 p.m. on Apr21, 2014</u> yeah I also know its meaning we don’t have to change it but if we write “men and women are segregated” this will be more accurate what do you think girls?</p>	S	Acknowledging + Giving language related feedback + Seeking language related feedback
<p>→ <u>Samar said at 4:17 p.m. on Apr 21, 2014</u> yes I think that is grammatically more correct . anyway I edited that</p>	S	Giving language related feedback



Wiki interaction	By	Types of comments/edits
<p>Samar wrote at 4:15 p.m. on Apr 21, 2014 Indeed, the Kuwaiti wedding party has special features and people like attend <u>attending</u> wedding, because they can spend very interesting times and meet all their friends and families <u>relatives</u>. Kuwaiti wedding is not like other cultures, men and women are segregate <u>segregated</u> (...)</p>	S	Correcting another's existing text

This innovative analytical approach also allowed exploration of the teachers' behaviours, revealing that although some teachers asked students to edit their texts in the threaded discussion, they dominated the editing behaviours, hindering S-S collaboration (Case 1 and Case 2). From the threaded discussion in isolation it would appear that the teachers were encouraging engagement with the text; however, the text mode analysis showed that this was not necessarily the case, as in some situations the teachers edited the students' texts. The following extract showed that despite the fact that Ms. Danah encouraged Amy to edit her text at the threaded mode, the text mode analysis suggests that she was the one who edited the text.

Extract 45 Case 2

Wiki interaction	By	Types of comments/edits
<p>Amy wrote at 11:33 a.m. on March 18, 2014 (...) fish, meat and chicken. <u>On any Kuwaiti menu you'll find a collection of delicious dishes, each one uneaque in taste, flavour and arema. And chances are that many of irresistible servings will be prepared according to the most popular style of cooking, the 'tabeekh'. Its mouth-watering taste is simply irresistible, especially with a menu that typically includes rice with lentils, Kuwaiti chicken biryani, potatoes and rice kebbeh.</u></p>	S	Expanding on own existing ideas
<p>Amy said at 11:35 a.m. on March 18, 2014 Teacher I added some sentences and I wrote an introduction for my part Kuwaiti food. Let me know your opinion about it</p>	S	Acknowledging + Seeking teacher feedback
<p>→ Ms. Danah said at 11:57 a.m. on March 18, 2014 yes it was good reading your part but try to revise it , they are some errors I will check that once you revise it</p>	T	Giving feedback + Promoting editing behaviour + Giving task instructions



Wiki interaction	By	Types of comments/edits
<p>Ms. Danah wrote at 1:11 p.m. on Mar 22, 2014 (...) On any Kuwaiti menu you'll <u>you will</u> find a collection of delicious-delicious dishes, each one uneaque is <u>unique</u> in taste, flavour and arema. And chances <u>aroma, chances</u> (...)</p>	T	Correcting students' texts

The approach also revealed that teachers modelled editing behaviours using the text mode and threaded modes in a *complementary manner*. For example, in the following extract Ms. Wesam edited the students' wiki text and then used the threaded mode interaction to draw their attention to her editing behaviour. She also encouraged them to edit each other's texts rather than depending on her.

Extract 46 Case 3

Wiki interaction	By	Types of comments/edits
<p>Ms. Wesam wrote at 7:21 a.m. on Mar 25, 2014 Kuwait was built built with by it's own people's hand hands (..) since these believes are root rooted in the Kuwaiti society. in In our wiki page page, we present are going to present some of the cultural norms which are relate related to men and women</p>	T	Correcting students' texts
<p>Ms. Wesma said at 7:22 a.m. on Mar 25, 2014 Girls please check the editing page some editing have been made by me try to learn from what I have edited there are some grammar rules that we have just taken in the class such as passive voice</p>	T	Notifying students about edits
<p>Ms. Wesam wrote at 2:36 p.m. on Mar 26, 2014 The Arabic Islamic culture reflects is reflected (...)</p>	T	Correcting students' texts
<p>Miss Wesam said at 2:37 p.m. on Mar 26, 2014 Girls you are repeating the same passive voice mistake check the page history I will leave the editing for you next time</p>	T	Notifying students about edits + Promoting editing behaviour
<p>→ Samar said at 4:21p.m. on Mar 26, 2014 Thanks teacher for pointing out this it is really helpful I struggle to use passive voice in sentences but now it seems very clear to be because when you correct "reflects" to "is reflected" the example was so clear</p>	S	Thanking + Acknowledging

Extract 47 represents how instances of internalising were observed in students' writing behaviours. For example, the analysis of the threaded and text modes showed how Samar was able to independently use what had been discussed by the teacher in her subsequent interaction with her peers using the threaded and text modes.

Extract 47 Case 3

Wiki interaction	By	Types of comments/edits
<p>Laila wrote at 1:36 p.m. on Apr 5, 2014 <u>When the bride's family took the dowry, they prepare the bride for the husband. The bride puts "Henna" in her hands and hair and buy new clothes and gold. She keep preparing before the wedding party. Also, all her friends and families gather in the night before the wedding to congratulate the bride and do the 'Yalwa'. The Yalwa means a celebration for the bride in her family house which involves putting Henna in the bride's hands and sign songs for the bride. the Yalwa performs by a number of woman and girls (...)</u></p>	S	Expanding on another's existing ideas
<p>→ Samar said at 6:36 p.m. on Apr 5, 2014 hello Sue miss you so much during this weekend :) I check your writing I edited some of your mistakes I think miss has mentioned the use of passive voice You wrote the wrong thing again when you say " the Yalwa performs by woman and girls" I think here we also using the passive so it is The Yalwa is performed by ..." Also I don't think it makes sense to say women and girls we can just say women. I also notice that you write woman is singular and women is plural</p>	S	Greeting + Expressing emotions + Giving language related feedback
<p>→ Samar wrote at 6:35 p.m. on Apr 5, 2014 <u>When the bride's family took takes the dowry, (...) she keep keeps preparing before the wedding (..) in her family family's house which involves putting henna . The Yalwa performs is performed by a number of woman and girls Women in the bride's house.</u></p>	S	Correcting another's existing text

Analysing both modes also made it possible to show how students' mistakes in the text mode were utilised by the teacher to stimulate S-S *collaborative dialogue* in the threaded mode (as illustrated in the following extract). Arguably, without looking at both levels of interaction, it would be difficult to claim that collaboration occurred.

Extract 48 Case 3

Wiki interaction	By	Types of comments/edits
Samar wrote at 5:27 p.m. on Mar 30, 2014 (...)Kuwaitis have always been free to manage their affairs among themselves (...)and develop their unique cultural characteristics in their own way (...).	S	Expanding on another's existing ideas



Wiki interaction	By	Types of comments/edits
Ms. Wesam said at 11:38 p.m. on Apr1, 2014 Group 2 I noticed that Samar has written the following sentence in paragraph 4 "Kuwaiti have always been free to manage their affairs among themselves" do you think using the word affair fit the sentence and the meaning here, what do you think of using other sentence think together about an alternative word that can suit the sentence and the meaning	T	Promoting giving language related feedback
→ Laila said at 12:39 a.m. on Apr 2, 2014 I think what Samar has written is not wrong but the word cannot be used in this sentence to refer to what we are trying to say I have no idea about alternative but relation or affinity can be used what do you think girls??	S	Giving language related feedback + Seeking language related feedback
→ Sue said at 4:47 p.m. on Apr 2, 2014 Affinity I don't know what does this word means exactly I have not used that in a sentence before but I checked that in the dictionary it means like a sort of close relationships. I think rather than saying relation or affair we can say relationship or social relationships. Any comments?	S	Giving language related feedback + Seeking language related feedback
→ Samar said at 5:22 p.m. on Apr 2, 2014 Oh I have just realised that there are a difference between using the two words !! affair can be used to a love relationships between two people but relationships is more formal and can be used to describe the sort of relationships that we are talking about here ☺ anyway I edited that and changed to relationships	S	Giving language related feedback + Elaborating



Wiki interaction	By	Types of comments/edits
Samar wrote at 5:23 p.m. on Apr 2, 2014 free to manage their affairs relationships among themselves as they	S	Correcting another's existing text

6.4. Summary

This chapter discussed the main findings to achieve the broader aim of this study. The chapter started by arguing that there are two factors that may shape the way students collaborate with each other in the wiki collaborative writing activity. The first one is the effect of the broader sociocultural context which not only influences the way students interact together, but also how teachers intervene in students' online interaction. It suggested that teachers are as likely as the students to import behaviours that are affected by their cognition and ideologies about teaching and learning, as well as their previous experience with technology and students, which might affect the way they interact in the wiki activity. Those teachers who viewed themselves as the most reliable source of knowledge (Cases 1 and 2) hindered students' collaboration by dominating the interactions, whereas the other teacher (Case 3) promoted students' collaboration. Based on this, two types of teacher interventions were identified: (1) collaborative orientated interventions and (2) non-collaborative orientated interventions. When adopting these interventions, teachers used different strategies that hindered or promoted S-S collaboration. The chapter highlighted the behaviours that seemed to promote or hinder collaboration. Establishing a wiki culture of collaboration, reinforcing a sense of wiki community, encouraging students' mutual engagement, promoting *linguaging* and collaborative dialogue by being a co-learner, and modelling editing behaviours were strategies that to some degree, promoted S-S wiki collaboration. Other strategies such as direct wiki edits, immediate response to students' posts, a lack of teacher monitoring of S-S threaded interaction, and instructing students to participate, may have promoted students' participation but not necessarily collaboration.

The chapter also highlighted the usefulness of analysing both modes of interaction, namely the threaded and the text modes. Without examining both modes of interaction, instances of collaboration and the teacher's role in the process of collaboration would have been missed and unexplored fully.

Chapter 7 Conclusion

7.1 Overview

This study set out to explore the effect of EFL teachers' wiki online interventions on student-student (S-S) collaboration in wiki-mediated collaborative writing activities. Previous wiki research studies in the context of language learning have called for more online intervention from teachers, as a way of helping students to become more collaborative (e.g., Arnold et al., 2012; Kessler, 2009; Lund & Smordal, 2006). They have argued that teacher support is necessary to enhance the notion of collective ownership of the text, to ensure equality, and to promote instances of collaborative behaviours that can enhance the online language-learning process. However, evidence of how teachers attempt to enhance these behaviours is still missing from the wiki literature. To understand this, the following research questions were proposed:

RQ1. What collaborative/non-collaborative behaviours do Kuwaiti EFL female students from two government secondary schools engage in whilst writing their texts using the wiki threaded discussion and editing modes?

RQ2. How do Kuwaiti secondary school EFL teachers intervene in students' online wiki activity?

RQ3. Do teachers' online wiki interventions promote or hinder students' collaboration? If so, how?

7.2 Methodological and theoretical contributions

To answer these research questions, a comprehensive analysis was used, taking into consideration the media convergence and the technological facets of the wiki platform, namely the wiki threaded discussion (i.e., the threaded mode) and editing behaviour (i.e., the text mode). This innovative way of analysing the complexity of wiki writing interaction that involves writing and discussion, captured instances of collaborative and non-collaborative behaviours, and how the teachers mediated student interaction at both levels of interaction. Arguably, if only one mode of interaction had been analysed, the picture of how the writing process took place, and how instances of *talking about the text* occurred would have been incomplete. In other words, as discussed in Chapter 6, many instances of collaboration would have been missed if the analysis had focused on only one mode. Complementing the online analysis with the interview data illuminated further sociocultural issues that enhanced the understanding of students' and teachers' online behaviours.

By employing this analytical approach to the online wiki interaction, the main findings in relation to the research questions suggest that: (1) Simply asking students to work on wiki-mediated collaborative writing activities may not guarantee their engagement in collaborative interaction, even though the teacher is present. It is neither the technology (the wiki) nor the activity (collaborative writing) that really matters; it is the way that teachers interact and guide the students. This is not to underestimate the effectiveness of wiki technology nor of the collaborative writing activity, but to broaden the understanding of the effect of agents using this particular technology to perform this type of activity (Egbert, 2005; Gutierrez, 2006; Lund, 2008). As evident in this study, although all students, to some degree, shared similar background characteristics, had received similar training, and engaged in a similar wiki activity, their level of collaboration differed. The degree of S-S collaboration was affected by how teachers mediated the activity.

Therefore another finding suggests that: (2) Teachers play a critical role in shaping students' interactions in wiki-mediated collaborative activities. However, not all teacher interventions are the same and not all are ultimately effective in promoting S-S collaboration. Indeed, teacher interventional behaviours may sometimes impede the level of S-S collaboration. Establishing a wiki culture of collaboration, reinforcing a sense of wiki community, encouraging students' mutual engagement, promoting *linguaging* and *collaborative dialogue* by being a co-learner, and modelling editing behaviours were strategies that to some degree, promoted S-S wiki collaboration. Other strategies such as direct wiki edits, immediate response to students' posts, a lack of teacher monitoring of S-S threaded interaction, and instructing students to participate, may have promoted students' participation but not necessarily collaboration. (3) At the broader level, student collaboration is not only affected by how teachers intervene but also by broader sociocultural issues that reflect students' traditional views of teachers as figures of authority, their reliance on them as the most reliable source of knowledge, their preference for writing individually over collaboratively, and their perspectives of individual ownership of the wiki text. In this study, these sociocultural issues not only affected how students interacted with one another and with the teachers, but also affected the way the teachers intervened in the students' wiki collaborations. On the one hand, the teachers who believed in the traditional view of learning which emphasises the central role of the teacher in transmitting knowledge and who underestimate the active role of students, adopted non-collaborative-orientated interventions, that not only obstructed opportunities for S-S collaboration, but also exhibited examples of *authoritative teachers* who promoted student participation without necessarily

promoting S-S collaboration. On the other hand, the teachers who held beliefs that are aligned with the SCT perspective practised a facilitator role, intervening in a collaborative-orientated manner that not only promoted student participation, but also ensured that instances of collaboration occurred.

7.3 Limitations of the study

A number of limitations must be acknowledged. Firstly, all the participants were female due to cultural and religious issues in Kuwaiti government schools; having a mixed gender sample could have illuminated more issues. Secondly, the study was exclusively limited to investigating the use of wiki technology in particular classrooms in Kuwait; therefore there was no attempt to generalise beyond the study's participants in these classrooms. It is hoped that giving thick description might enhance the transferability of the findings to other contexts with similar characteristics. Thirdly, the students' training sessions were conducted by the researcher not their teacher. This may have affected the ecological validity of the study. It would have been more natural if the students had received the training from their actual teachers.

Fourthly, the analysis was limited to one embedded case from each teacher's classroom; this limited the opportunities to explore variations amongst groups in the same teacher's classroom. However, the decision to include a representative group of students who exhibited both collaborative and non-collaborative-orientated behaviours, allowed for the exploration of variations and similarities between the teachers. This not only broadened the understanding of the way the different teachers intervened, but assisted in the identification of different types of teacher behaviours that promote/hinder collaboration in the wiki context. Furthermore, selecting one embedded case allowed for the investigation of instances of collaboration in the wiki text and threaded discussion. This required an in-depth qualitative analysis that could depict how interaction occurred between the students themselves on the one hand, and between teachers and students on the other. Another limitation relates to the analytical approach; although a wiki is a multimodal online context that involves images, videos and hyperlinks, the study focused only on the discussion and the writing behaviours, since it was believed that these two important aspects constitute any collaborative writing activity. A final limitation that may interest most of stakeholders is that the study did not measure the effectiveness of wiki collaboration on developing the students' writing abilities. Assessing whether or not students' writing abilities were developed as a result of

participation in the wiki-mediated collaborative writing activity was beyond the focus of this thesis.

7.4 Pedagogical implications

Despite these limitations, the study makes theoretical and methodological contributions to the CALL field (discussed previously in section 7.2). Theoretically, it provided a thorough description of student and teacher wiki interaction in a new sociocultural context (i.e., Kuwait) where to date limited research has been conducted. The study also identified teacher behaviours that could support or hinder S-S wiki collaboration. It also touched on a range of sociocultural factors that may shape the way teachers and students interact. Methodologically, this study applied an innovative approach to examine both the wiki threaded and text modes, which not only allowed for the documenting of how students interacted, but also of how the teachers intervened. In addition to the above contributions, this study has some pedagogical implications for teacher training to foster S-S collaboration in wiki-mediated collaborative writing activities and to improve the practices of EFL teachers. These implications are categorised into six themes: pedagogical as well as technical training, reconceptualising roles, creating a classroom culture of collaboration prior to the wiki technical training, group formation, teacher interventions, and the importance of modelling.

7.4.1 Pedagogical as well as technical training

Based on the findings of the current study, it is argued that it is advisable to organise pedagogical teacher training sessions in addition to the technical wiki training sessions. Teachers should understand the theoretical assumptions behind implementing collaborative activities generally and in wikis specifically. They have to value the *process* of online interaction as well as the *product*. In this present study, focusing solely on the product alone (i.e., the wiki text) seemed to obstruct opportunities for S-S collaboration and therefore hindered their language learning process. Viewed from a SCT perspective, the study provided evidence of language learning in process (Swain, 2000, 2006; Swain & Watanabe 2013), especially when the students were given opportunities to articulate their thoughts and linguistic knowledge. Therefore, teacher pedagogical training sessions should discuss the SCT theoretical aspects of language learning and explicitly encourage teachers towards engaging in a *collaborative dialogue* with each other, reflecting on its benefits and challenges. This could help teacher to

value the importance of *collaborative dialogue* and as a consequence encourage their students to engage in such dialogue.

Relevant to this, is the method of assessment. There is no doubt that the final product is a key indicator of the level of success in learning. However, teachers are advised to look beyond the final product to assess the process. That is, to evaluate to what extent their students engaged in collaborative behaviours; did their interaction involve aspects of *collaborative dialogue*, and did they exchange knowledge in ways that promoted their learning? If teachers closely examine the process along with the product, they will be able to help students in engaging in productive interaction that not only enhances the final text, but also promotes instances of language learning between students in wiki-based collaborative writing activities. It might be useful during the training to draw teachers' attention to the complementary use of the wiki threaded discussion and text modes. To improve the process of learning, teachers are also advised to reconceptualise their online wiki roles.

7.4.2 Reconceptualising roles

As part of the pedagogical training it is necessary to reconceptualise not only the role of the teacher, but also the role of the learner. Having predefined fixed roles of the teacher as editor and the student as writer, or/and the teacher as sole expert and the student as novice, does not seem to promote collaboration in the wiki context. In line with the SCT perspective, teachers should understand that they are not the sole source of knowledge and should view their students as active knowledge-constructors (Kaufman, 2004). They have to accept the fact that a wiki online collaborative writing activity is a student-centred activity, in which they have to minimise their *authoritative roles*. They are advised to trust students' knowledge and to allow them opportunities to teach and learn from each other. That is, to give them the floor to practise and experience the teacher's role. However, agreeing with Kessler (2009), Lee (2010) and Storch (2013b), teachers are advised to closely monitor the process, of how students teach and learn from each other. Based on the study data, there were instances of incorrectly resolved and unresolved linguistic problems between students, which required further attention from the teachers.

The reconceptualising of these roles does not only require teachers' efforts to do so, but it also involves students. Students have to understand that they should take an active role in the learning process, and they have to value other peers' contributions and

knowledge. Realistically, this might be daunting in a teacher-fronted classroom; however, attempting to teach students how to be collaborative (Mercer, 1995, 2003; Pifarre & Staarman, 2011) before implementing the wiki activity could be useful. This can be done by organising sessions for reinforcing collaboration as part of the broader classroom culture.

7.4.3 Classroom culture of collaboration prior to wiki technical training

Before using wikis, it is essential to first introduce collaborative learning and integrate it as part of the classroom culture. The definition of collaboration, and the purpose of collaborative learning should be clearly explained. Several classroom hours should be spent on discussing the benefits and challenges of collaborative learning. Students should understand that interacting in a collaborative way will help them acquiring new knowledge and learning from others. Students should not only be exposed to the meaning of collaboration generally, but also to what is meant by being a collaborative writer. They have to understand that writing collaboratively means the joint production of the text (i.e., co-authoring). They also have to value the importance of *collaborative dialogue* and how it complements the act of writing.

The students in this study still saw the teachers as authoritative; therefore, teachers themselves may play a vital role in cultivating a sense of collaboration (Mercer, 1996). Teachers are advised to organise orientation sessions to discuss with their students the notion of collaboration and how it differs from cooperation. They should explicitly ask students to engage in several collaborative behaviours in the classroom. Then, they have to explain the notion of collaborative writing and ask students to engage in a collaborative writing activity themselves. One way of helping students to grasp these behaviours is by modelling these behaviours with other students (discussed in section 7.4.6). For example, a teacher could model what it looks like to be a collaborative partner in collaborative writing activity (De Jong, 2012).

When teachers ensure that students have fully understood the notion of collaboration generally, and specifically in a collaborative writing activity, technical wiki training sessions can be introduced. It is recommended that students be shown how the design of wikis is aligned with what has been discussed in collaboration-orientated sessions. This link is useful to help students in understanding the purpose of using a wiki and how it could support their learning. They have to understand that using wikis is not only about participating; it is about engaging collaboratively with what others have written and

said. One important finding of the present study is the lack of student engagement in what Lund (2008) called *distributed collective network productions* (i.e., linking pages together using wiki hyperlinks). Teachers are advised to emphasise the need to engage in *distributed collective network productions*. They have to clearly ask students to extend their interaction beyond their group members and to create links to invite other group members to expand and add onto their pages.

7.4.4 Group formation

Prior to asking students to interact in the wiki context, teachers are advised to form groups of students, so as to foster collaboration amongst participants. In this study, the students were assigned to groups of four with varying collaborative behaviours and language proficiency levels. Although the research findings were not sufficiently conclusive to give sound recommendations in this regard, since the study did not focus on testing the effect of various conditions of group formation on S-S collaboration, the results of the study implied that combining students with various behaviours (i.e., collaborative and non-collaborative) and language proficiency levels could be an effective approach to promote collaboration. As seen in some online interaction extracts (Case 3), students interacted with those who were willing to collaborate; although they had different language proficiency levels, they were able to share expertise (Arnold, Ducate, Lomicka et al., 2009). Formation of the online wiki group in this way allowed each student to exchange her weaknesses and strengths in the service of achieving the joint goal. Agreeing with Li and Zhu (2011), it also helped to reinforce the students' social relationships. In the interview data, some students declared that working with others in the wiki fostered their FTF social relationship with those with whom they were not acquainted. Having highlighted the teacher's role in the formation of wiki groups, it is essential to reiterate that even with groups of students with different behaviours and levels of language proficiency, simply asking them to interact together cannot guarantee their collaboration. Findings therefore suggest that teachers should intervene in student interaction in a way that could support S-S collaboration.

7.4.5 Teacher interventions

The study findings highlight that teacher intervention is important, however, teachers should know when and how to intervene. Their intervention should be gradual and contingent (Aljaafreh & Lantolf, 1994); they should intervene only when it is needed and withdraw their intervention when students show signs of collaboration.

To complement the orientation training sessions about how to be collaborative, teachers are advised to intervene in the wiki context to remind student about expected/non-expected behaviours. In this study, it was found that sharing some ground rules with students in the initial stage helped to promote the level of their collaboration. Therefore, teachers might develop a wiki front page to share these behaviours with all the groups.

Teachers are also advised to assess the process of student interaction first, and to intervene only when it is needed. In line with the SCT perspective, they are advised to begin to gradually minimise the number of their interventions once students have begun to collaborate with each other. Agreeing with Chiu (2004) regarding the FTF classroom, teachers are advised to adapt their interventions according to the level of the students' progress and needs. Rather than simply answering all students' questions, teachers are advised to promote S-S collaboration by positioning themselves as *co-learners* questioning students' language use, asking open questions to promote *collaborative dialogue* and redirecting questions to other group members to help students to engage in collaboration (Kim, 2012; Rojas-Drummond et al., 2001). Teachers are also advised to combine two particular strategies, namely asking inactive students to participate and asking students to engage mutually. This might not only reduce instances of students behaving as social loafers and free riders, but also promote the level of S-S collaboration.

Additionally, the study findings revealed that students favoured teacher involvement in the wiki. School age students value the teacher's presence and appreciate positive feedback from the teacher. Therefore, it is important to ensure that teachers intervene in a way that motivates students towards participating in the activity. This can be achieved by encouraging teachers to post positive feedback and to praise students' work. It is also essential to remind teachers that positive feedback can promote collaboration, when feedback is explicitly directed towards the group as a whole rather than to individuals. This may reduce instances of individual work and taking a competitive stance when interacting with others. Teachers also have an important role to play in promoting the notion of collective ownership of the text. They should intervene to encourage and model editing behaviours.

7.4.6 The importance of online modelling

Teachers are also recommended to model expected online behaviours (Storch, 2013b). In this study, modelling editing behaviours seemed to help students to engage

collaboratively with each other's texts. This was not only evident from their initiatives to correct each other's texts, but also from their acceptance of each other's edits. However, when teacher-dominated editing behaviours were evident, the level of S-S collaboration decreased. This suggests that students not only need established ground rules that explicitly guide them in the manner in which to edit each other's texts, but that they also need teacher modelling. Teachers should model these behaviours and then step back to allow students the opportunity to detect errors and to correct them themselves. Although in this study the modelling of editing behaviours was limited to editing the form (grammatical aspects of the text), teachers are also advised to model revision (i.e., revising the content and meaning of the text). These types of modelling could promote the notion of collective ownership of the text, which is essential in a collaborative writing activity (Storch, 2005).

Furthermore, teachers are also advised to promote S-S collaboration in the threaded discussion. This could involve modelling effective ways of talking with others, for example, modelling *collaborative dialogue*.

7.5 Implications for policy maker

This thesis showed that using wikis in Kuwaiti government secondary schools and more specifically in EFL classrooms is feasible and beneficial to promote learners' collaboration. The thesis also suggested that teachers played a significant role in promoting or hindering the learners' collaboration. Therefore, policy makers are advised to integrate wiki as a tool to facilitate learners' engagement in collaborative writing activities. However, before integrating wikis, there is a need to reconsider the type of training provided for the EFL teachers. That is, rather than focusing on the teachers' technical training, policy makers need to focus more on the pedagogical features of teacher's training. That is, there is a need to raise teachers' awareness of the theoretical underpinning of the wiki technology and explicitly advise them to adopt the type of behaviours that seem to promote learners' collaboration.

7.6 Future research

This study has investigated students' online interaction and the role of teachers' online interventions in promoting student collaboration in wiki-mediated collaborative writing activities. Although the study bridged some gaps in the CALL literature, the findings of this study suggest that there are many other aspects and issues that await further investigation. Below are some suggested directions for future researchers who wish to extend an understanding of the use of wikis in language-learning contexts.

First of all, based on the limitations of this study (section 7.3), future researchers working in other contexts could improve the design of the study, by covering a larger sample comprising a mix of genders over a longer period of time, to highlight issues in gender power-relationships, and to illustrate how these may affect student collaboration whilst teachers are present.

The current study suggests a relationship between teacher cognition and the way a teacher intervenes in student online collaboration. Although background data were collected from the teachers, it was not possible to cover this point due to the scope of the thesis, the limited time, and especially the limited knowledge of the researcher in theories of teacher cognition. Therefore, future researchers may wish to examine in depth how teacher cognition affects teacher online wiki interventions, and the impact of this on student collaboration.

The data also suggest a relationship between teacher presence and student motivation. For example, some teachers suggested that they wanted to show students how much they cared about the activity to promote the level of student participation and motivation. Furthermore, some students acknowledged that they were motivated because the teacher was present. Future studies are needed to examine to what extent student collaboration, participation and motivation are affected by the presence of the teacher. This could be explored by conducting comparative design studies, for example, by dividing students into two groups, one with teacher intervention and the other without teacher intervention and measuring the level of participation and motivation.

The study tentatively concluded that students and teachers brought traditional classroom practices into the wiki online context. Future researchers could go a step further by collecting observational data from teachers' and students' FTF collaborative writing activities to determine to what extent these practices are imported to the wiki context.

Here, emphasis should be given to how the medium of interaction (i.e., the online wiki versus FTF contexts) shapes teacher and student interaction. This could be achieved by employing an in-depth exploratory case study to compare the students' and the teachers' behaviours in FTF collaborative writing activities and wiki-mediated collaborative writing activities.

Due to the wiki affordances of tracking students' editing behaviours, future studies could employ a micro-genetic analysis of students' language-learning processes. In this study, there were few instances of students who were able to use what was discussed with their peers or teachers (inter-mental plane) in their subsequent editing behaviours (intra-mental plane). Future research could qualitatively analyse these processes and highlight instances of internalised knowledge. This could be done by employing the current study framework, which emphasised the need to analyse the threaded discussion along with the editing behaviours. Indeed, the framework itself could be tested and examined in other future wiki research with other students from different contexts, to test its validity and usefulness, and also to modify or expand it. Since the current study employed this analytical approach in a PBwiki platform, other platforms with different features and technological facets would definitely require adaption for the framework.

To build on the current study's findings, future studies could also examine to what extent the identified teacher behaviours promote student online wiki collaboration. This could be done, by setting up a comparative study that involves two groups of teachers. In one group, besides the technical training, teachers would be exposed to a series of pedagogical training workshops in which behaviours that promote and hinder S-S collaboration would be explained to the teachers, whilst the other group would be given only technical training. The teachers' interventions in the two groups could then be compared, and the extent to which the pedagogical and technical wiki training impacted the way the teachers intervened, could be explored.

7.7 A last word

Technology, no matter how advanced it is, is affected by the way we as humans use it. This study highlighted this point by presenting how three EFL teachers used wikis differently to serve their existing pedagogical purposes. The role of the teacher is critical in assisting S-S collaboration in a collaborative-oriented tool (i.e., a wiki). A word of caution, however, is that not all teacher interventions in online wiki collaborative writing activities will ultimately promote S-S collaboration, although they might promote participation. Echoing Pifarre and Li's argument,

The role of the teacher in [wikis] is not simply about stepping back, or controlling and directing learners' work. Learners have to learn how to participate and collaborate, and teachers need to play a role in facilitating and guiding this process. (Pifarre & Li, 2012, p. 112)

Building on their argument, teachers themselves need to be cautious in their interventions; they have to adapt their existing traditional teaching practices to align with the requirements of new technology, enabling students to play a central role in the process of knowledge construction. In other words, teachers are advised to adopt collaboration-orientated interventions to promote S-S collaboration in the wiki threaded and text modes.

Appendices

Appendix A: The Textbook Activity

Students' textbook activity taken from grade 12 'Over to You' textbook pages 75 and 76

Project 3

back
You are going to design and produce a poster to promote Kuwaiti culture. Work in small groups.

Design and produce a poster

Stage 1 Read and analyse

Look at these posters which have been designed to promote the culture of various countries and to attract tourists and other visitors. Discuss questions a–e below.



a What aspects of culture do the posters show?
b Do you think any of the posters have been designed for a particular age group or nationality?
c Which images on the posters do you find attractive? Which would put you off visiting the countries?
d What do you think of the layout and design of the posters? What are the good and bad points?
e Would you like more, or less, written information to accompany the photographs, or do you think the balance of writing and pictures is about right?

Stage 2 Discussion and decisions

a Decide what country or region you are going to promote with your poster:

- ▶ your own country
- ▶ a group of countries to which your country belongs
- ▶ a larger region

b Decide who you would like your poster to attract: young people, older people or everyone?

c Decide what aspects of your culture to include on your poster: historical, environmental, literary, musical, sporting, architectural, etc.

d Choose six or seven images you could use to represent these aspects of your culture.

Stage 3 Produce your poster

a Share out the tasks that need to be done. Here are some possible tasks:

- ▶ Select suitable images to include on your poster. Look in magazines, travel brochures and on the Internet.
- ▶ Write short texts describing each image on the poster.
- ▶ Plan the layout and overall appearance of your poster.

b When the individual tasks have been completed, get together as a group and make the poster.

c Think of one or more eye-catching titles or slogans to make people notice your poster.

Stage 4 Display your poster

a Display your poster on the classroom wall.

b Tell the rest of the class why you have chosen your images and who you hope to attract.

c You could end this project with a class vote: which group has produced the most persuasive poster?

TRY THESE WEBSITES FOR INFORMATION

- www.visit-kuwait.com
- www.sanadia-travel.com
- www.visitlondon.com
- www.visitparis.com
- www.dubai-tourism.net
- www.visit-dubai-city.com
- www.visitoman.com

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Appendix B: Wiki Platform Technical Evaluations

Table 1: Technical comparative analysis of the wiki platforms

Wiki platforms	Cost	Maximum storage space	Privacy and security	Minor changes shown	Page revision	Email notification	Comments on the texts	Show recent visitors	Users' password reset
Wikispaces	Free for public and protected users but cost 5\$ for private	2GB	Secure and user friendly	No	Unlimited	Yes	Discussion pages	No	Not mentioned
Wetpaint	Free	Unlimited	Not highly Secure / not user friendly	Yes	Unlimited	Yes	Threaded	No	Not mentioned
PBwikis	Free	Unlimited	Secure and user friendly	Yes	Unlimited	Yes	Threaded	Yes	Yes
Mediawiki	Free	Don't apply	Secure and user friendly	Yes	Unlimited	Optional	Discussion pages	Not mentioned	Not mentioned

<http://www.wikimatrix.org/compare/MediaWiki+PBwiki+Wetpaint+Wikispaces>

Appendix C: Pilot Study Report

Overview

Rigorous piloting of the research design was necessary in order to assess the procedures of the research, refine its design and more importantly pilot its instruments. Some modifications were undertaken of the main study on the basis of lessons learnt from the pilot study. The following sections illustrate the lessons that were learnt from the pilot study and the modifications of the research design.

Modification of the research questions

Before conducting the pilot study, the research started with the following research questions:

Q1-How do EFL teachers interact with students in online wiki-based collaborative writing activities?

Q2-What are EFL Kuwaiti secondary school teachers' perceptions and experiences of using a wiki as a medium of interaction through the process of collaborative writing?

Q3- What are EFL Kuwaiti secondary school students' perceptions and experiences of using a wiki as a medium of interaction through the process of collaborative writing?

The pilot study provided an opportunity to assess the viability of the research questions. Some modifications were made of the research questions. At the outset, in order to investigate the online wiki-based interactional process the research started out intentionally with very broad research questions, which would allow exploration of the phenomenon. However, after conducting the pilot study, the research questions were modified slightly as they were general, and had to be narrowed-down into sub-specific answerable questions. The data from the pilot study helped to narrow the focus and showed that teachers intervene differently in the online context, which seems to ultimately change the flow of students' online collaboration. This helped to redefine the focus and to look specifically at the collaborative behaviours that students engage in, and how teachers intervene in students' online wiki interactions. The research question has formulated to the following overarching research questions with some sub-questions:

RQ1. What collaborative/non-collaborative behaviours do Kuwaiti EFL female students from two government secondary schools engage in whilst writing their texts using the wiki discussion and editing modes?

RQ2. How do Kuwaiti secondary school EFL teachers intervene in students' online wiki activity?

RQ3. Do teachers' online wiki interventions promote or hinder students' collaboration? If so, how?

The selection of participants

The participants in the pilot study were all EFL teachers and students from a secondary school summer camp. Convenience sampling was employed to select the school, teachers and students. During the pilot study, the process of selecting schools and participants helped in the consideration of two important factors in the main study. Firstly, there was a need to make sure that the schools selected for the main study were equipped with computer labs with a very good Internet connection service. During the training sessions for the wiki, some challenges emerged, as the Internet connection of the summer camp was very slow and this delayed the process of training and also distracted both the students' and the teachers' attention. Secondly, there was a need to consider the teachers' and learners' IT skills and teaching background. That is, before conducting the main study, the Centre for Research and Educational Curriculum would be asked to look for volunteer teachers with good IT skills and with different levels of teaching experience and backgrounds in technology. This was important for two reasons. Firstly, to ensure that teachers had the basic skills that could help them to comprehend the wiki training easily, and therefore be able to use wiki technology independently after the training sessions. Secondly, this would increase the possibility of having variations in the way the teachers interacted with the students in online wiki-based collaborative writing activities.

Teachers' and students' wiki training sessions

In the pilot study, the training sessions consisted of two technical training sessions. The first session was for the teachers, which lasted for one and a half hours. The second session was conducted for the students and lasted for one hour over two consecutive training days. However, it was noted that there were some limitations in the training sessions that need to be avoided in the main study. Firstly, training teachers needed more time and effort, and there was a need to extend the training sessions. One way was

for the teachers to attend the students' training sessions to ensure that the teachers had fully comprehended the training. Secondly, in the pilot training session, the students and teachers were asked to perform the instructions presented, one by one after they had been presented and demonstrated using PowerPoint presentation. For example, when the researcher performed a step (e.g., editing acts, saving, adding links, etc.), the students and teachers were given time to practice it by themselves. However, this was time consuming and distracted the students' and teachers' attention from the training sessions, and it was difficult to manage the classroom. Therefore, in the main study, there was a need to avoid this by presenting and demonstrating all the steps first, and then asking the students and teachers to login into the wiki platform and to practice those themselves. They were given an instructions handbook to help them in remembering the main steps that were covered in the presentation and the researcher was available to walk around the class to assist individuals and answer their questions.

Further, during the training session there was a problem with steal locking the writing space by students. That is, if someone was writing on the group's page, other group members could steal the lock, and this would stop the one who was writing from completing the writing, causing lots of technical problems. Therefore, in the main study, students were told not to engage in such behaviour, and in order to make sure that this would not happen, group members were asked to take turns when writing on their wiki pages.

Moreover, one of the limitations of the pilot study was that there was no evaluation by the teachers and students of the training sessions received. Therefore, it was necessary to consider this in the main study, and to record all the training sessions. This would help to give the reader an impression of how the training went and what challenges emerged. Field notes, audio recordings and observation were used during the training sessions and evaluation of the training evaluation is presented in the methodology chapter of the main study.

Data collection instruments

For the pilot study, various data collection methods were used to explore the phenomenon. These data collection instruments were proposed, to answer the research questions. These are illustrated in Table 2.

Table 2 Research questions and instruments

Research questions	Data collection instruments
Q1-How do EFL teachers interact with students in online wiki-based collaborative writing activities?	Observing/tracking online interaction Stimulated recall interviews
Q2-What are EFL Kuwaiti secondary school teachers' perceptions and experiences of using a wiki as a medium of interaction through the process of collaborative writing?	Semi-structured interviews
Q3- What are EFL Kuwaiti secondary school students' perceptions and experiences of using a wiki as a medium of interaction through the process of collaborative writing?	Questionnaires + semi-structured interviews

The pilot study provided an opportunity to assess the effectiveness of the methods of data collection in answering the proposed research questions and hence in achieving the broad aims of the research. It was noted that the proposed methods for questions one and two were suitable for providing answers to the research questions. However, in relation to question three, it was realised that the use of semi-structured interviews would illuminate different issues that cannot be explored using questionnaires, for example, the challenges that the students faced when interacting with teachers or friends, and their reported negative or positive experiences. All these issues could be better understood by interacting directly with the students, rather than by administering questionnaires, which consist of questions that may not cover all issues. Further, semi-structured interviews were believed to be in line with the research approach and aims (i.e., to engage in in-depth qualitative exploration rather than to generalise the findings).

In addition to assessing the suitability of the data collection instruments for answering the research questions, the pilot study helped to check the design of the instruments, and also to clarify any ambiguous questions and to add more questions to the teacher background interviews that could help in interpreting the online data. The following sections discuss in turn the modifications of research instruments.

Student background questionnaire

Some minor changes were made to the sequence of questions (i.e., some questions about collaborative writing were moved from section 2 to section 5, which included a new topic called ‘collaborative writing experiences’). Some questions were deleted since it appeared that they were not necessary (e.g., ‘What do students most and least like about using computers?’), whilst others were paraphrased (e.g., rather than asking students what they like most and least about collaborative writing activities, they were asked to state the perceived advantages and disadvantages). Paraphrasing this question was necessary since in the pilot study, students were not sure about the meaning of the question, and when an example response was given to them in the form of advantages and disadvantages, they were able to answer the question. Further, the pilot study background questionnaire did include a section on collaborative language-learning experiences generally, rather than a section on collaborative writing in particular. It was therefore necessary to add a new section on collaborative writing in which some questions were asked.

Teacher background interview

Although the sections and sub-sections of the teacher background interview were broad, there were some interesting findings that emerged from the pilot study, which needed to be addressed in the background interviews for the main study. Although the main purpose of the background interview was to get a thick description of the teachers, it was noted that they could illuminate some interesting facts that could also be used in interpreting the teachers’ online behaviours. This could help in understanding the teachers’ own beliefs, which could then help in interpreting their behaviours by referring to various factors rather than only one.

Based on the pilot study, it was noted that it was necessary to include topics, and where appropriate add more sub-topics. The following table shows the original topics and sub-topics that were covered in the pilot study along with the new topics and sub-topics, which were added based on the pilot study.

Table 3 Topic and sub-topic of the teacher background interview

Topic	Sub-topics
(1) Teachers' teaching and educational background	Teaching background Training background
(2) Teachers' background in the use of technology	-Technology IT skills (added) -Teachers' perceptions of using technology in general (web 1.0 and web 2.0) -Teachers' personal technology use (web 1.0 and web 2.0) -Teachers' understanding of wikis such as Wikipedia (added)
(3) Teachers' use of technology in EFL classes	-Teachers' perceptions of using technology in EFL classes -Teachers' actual use of technology in EFL classes
(4) Teachers' use of technology in EFL writing classes	-Teachers' perceptions of using technology in writing -Teachers' actual use of technology in writing classes
(5) Learning the English language (added)	-Teachers' beliefs about how best students can learn English
(6) Teaching writing	-Perceptions of teaching writing -Behaviours of teaching writing
(7) Collaboration and collaborative writing	-Teachers' perceptions of collaboration in general -Teachers' perceptions of collaborative writing in particular - Teachers' experiences of collaboration -Teachers' behaviours in classroom collaborative writing -Teachers' beliefs about error correction (added) -Teachers' behaviours in terms of error correction (added)

Design and procedures

At the outset, it was planned to conduct the study with five teachers from different secondary schools in Kuwait. However, in the process of conducting the pilot study, some contextual constraints limited the number of teachers to three teachers for the main study. These constraints were due to the facts that the study included intervention and there would be some practical problems in finding schools to volunteer. Further, from the pilot study, it was noted that the complexity of online analysis requires a small number of participants to engage in in-depth exploration.

Before conducting the pilot study, there were some concerns about whether to do a classroom-based research study (i.e., asking students to do the wiki project in a computer lab), or to ask them to perform the activity solely online at home. Conducting the pilot study showed that asking students to do the project in the school computer lab

had lots of challenges, and this was realised when the training sessions took place. That is, the situation was artificial and students were looking at each other's screens and talking to each other, rather than interacting solely via the wikis. Further, the teachers were unable to post comments and interact with the students in the wiki, as they had to walk around the groups and manage the classroom. Moreover, the fact that the students were interacting asynchronously at the same time created lots of technical problems for the wiki platform (i.e., the constant need to refresh the page and the steal locks).

Based on the previous above-mentioned challenges, it was decided to stick to carrying out the wiki project at home. However, this decision was not completely without any challenges. That is, although students volunteered to participate, some of them were passively engaged and their online participation was limited to one or two times for the whole wiki project. Since the students were in their final year of secondary school, they appeared to be more concerned about their grades and whether they would attain some extra marks as a result of their participation. Therefore, the possibility of asking the teachers to explain to the students that this would be online homework and it would be done by students who volunteer, was considered for the main study.

In addition to these issues, the pilot study showed that students would need more time to complete their projects. Therefore, the wiki project was extended for a longer time. The online wiki activity lasted for four weeks in the pilot study. However, in order to give the students and the teachers more time to use the wiki and therefore to interact more, the wiki activity lasted for 8 weeks.

Amendments to the approach to data analysis

Before conducting the pilot study, it was planned to analyse the wiki interaction using both qualitative and quantitative perspectives. That is, it was planned to quantify the students' online collaborative behaviours and their levels of participation (i.e., by looking at the number of comments and editing acts) to provide an overall perspective of their online interaction. However, after being immersed in the process of data analysis for the pilot study, it was noted that quantitative analysis was not suitable for answering the research questions and for achieving the broad aim of the research. Therefore, adopting a qualitative perspective was believed to be more informative as a way of answering the research questions and of engaging in in-depth exploration of the phenomenon.

Further, at the outset, the analysis of the pilot study focused solely on the discussion forums. However, it was realised that analysing the discussion forum alone provided an incomplete picture of the level of collaboration, especially since the affordances of a wiki permit two levels of interaction, namely the discussion and the writing acts. Therefore, the pilot study helped to develop formalism for analysing the wiki interaction.

Also, by conducting the pilot study it was possible check the suitability of the coding schedule and to adapt it based on what emerged from the data. Since the study focuses on both teachers and students, it was necessary to align both frameworks to produce a meaningful and coherent analysis.

Moreover, from the pilot study it was noted that the selection of an embedded case should be based on different criteria. That is, at the outset it was planned to choose 2 groups from each class, namely the most and the least collaborative groups. However, it appeared that selecting one group that showed collaborative and one group that showed non-collaborative behaviour from every teacher's class was more informative, since the focus was on the way the teachers intervene in student collaboration. This also helped to show variations in the way that the teachers behave with the students.

Appendix D: Student Background Questionnaire

Student Background Questionnaire

Dear Students,

This questionnaire aims to gather some information about your English language level, computer usage and collaborative language-learning experience. The answers that you provide here will be used for my research purposes and your personal information and all other information will be anonymised .

Section 1: Personal information:

Your name:.....

Your age:.....

Your last semester GPA:

Your last semester English language score:.....

Your last semester ICT score:.....

Section 2: English language background:

1- When did you start learning the English language?

- In Kindergarten
- From the primary stage
- From the intermediate stage

2- What is the language you speak at home? (You can tick more than one answer)

- Arabic
- English
- Other (.....)

3- Have you worked with your friends using English in the English language classroom?

- Yes
- No

4- If your answer to question 3 is yes, can you rate your performance?

- Poor
- Fair
- Good
- Excellent

Section 3: Information about your background in technology:

Part 1: General information

5- Do you own a computer at home?

- Yes
- No

6. How many years have you been using computers?

(Please choose the closest answer to your usage)

- Less than a year
- Between 1 to 5 years
- More than 5 years
- Other (please tell me how many years.....)

7. How many hours a day do you spend using a computer (at home)?

(Please choose whichever category comes closest to the number of hours you spend on a computer)

- Less than an hour
- Between 1 to 3 hours
- More than 3 hours
- Other (please tell me how many hours.....)

8. How many hours a week do you use computer for the following purposes:

Hours	Never	Less than 1 hour	1-2 hours	3-5 hours	More than 5 hours
Chat					
Writing emails					
Participating in a forum					
Surfing the Internet					
Using blogs					
Using wikis					
Using Facebook					
Using Twitter					
Reading Wikipedia					
Learning English					
Other (please specify.....)					

9-Which language do you use if you use asynchronous text-based communication tools such as emails, forums, blogs, wikis, Facebook, Twitter ? (You can tick more than one answer)

- Arabic only
- English only
- Other (.....)

Part 2: Your computer literacy skills:

10-Please tick the category that describes your level of confidence:

Skills	<i>Not confident at all</i> 1	<i>Not confident</i> 2	<i>Somewhat confident</i> 3	<i>Confident</i> 4	<i>Very confident</i> 5
Using computers					
Typing in English using a computer					
Typing in Arabic using a computer					
Surfing the Internet					

Section 4: Collaborative language-learning experiences:

Please tick the closet category to your answer:

11. How much time do you spend interacting in English in your English language classes?

Interaction with	Never	Less than 30%	30-50%	51-70%	More than 70%
Teachers					
Students					

12. How many classes per week do you work in groups in English language classes?

- 0
- 1-2
- 3-4
- 5

Section 5: Collaborative writing experience:

13- Have you been involved in collaborative writing activities with your friend using English in the English language classroom?

- Yes
- No

14-If your answer to question 5 is yes, how would you rate your performance?

- Poor
- Fair
- Good
- Excellent

15. Please choose only one option:

Question	Strongly agree	Disagree	Neutral	Agree	Strongly disagree
1. Writing with other classmates is beneficial for developing my English language abilities					
2. Classmates comments are useful for developing my writing					
3. I usually incorporate other's suggestion to the text					
4. When writing with others, I listen carefully to their ideas					
5. I like to take the leader role and complete most of the task					
6. I frequently exchange my ideas with others in collaborative writing					
7. I don't care about other's suggestions during the writing activity					
8. I prefer writing individually than writing with others					

9. I don't like to discuss my ideas with others during a writing activity					
10- I respect my peers' opinions when we write together					
11- I usually ask my peers questions when we write together					

Please answer the following questions:

16-What are the advantages of involving in collaborative writing activities with others in your English class?

.....
.....
.....

17-What are the disadvantages of involving in collaborative writing activities with others in your English class?

.....
.....
.....

Thanks for your time!

Appendix E: Teacher Semi-Structured Interview Schedule A

Topics	Sub-topic	Interview questions
Teaching, education and training background	Education and Teaching background	1- What is your teaching background? <i>Prompts:</i> <ul style="list-style-type: none"> • What qualifications do you have? • How long have you been teaching English? • Which grades have you been teaching?
	Training background	2-What teacher professional development training have you attended with regards to <ul style="list-style-type: none"> a. Using technology? b. Teaching writing?
Use of technology	IT skills	3 -How long have you been using a computer: in your personal life ? 4- Can you assess yourself in terms of using a computer? (added) <i>Prompts:</i> Do you think you have good/bad skills? What IT skills do you have? Do you think you have basic/advanced skills? What IT skills do you think you are confident in?
	Perceptions of technology	5-What do you think of using the following technology in one's personal life e.g., emails, forums, chat rooms, word processing etc.? <i>Prompts:</i> Which technology do you think is beneficial? What benefits do you see in the use of technology? What limitations do you see in the use of technology? 6- What do you think of using the following technology in one's personal life e.g., Twitter, Facebook, Wikipedia, Ipad, Blogs <i>Prompts:</i> Which technologies do you think are beneficial? What benefits do you see in the use of these technologies? What limitations do you see in the use of these technologies?
	The use of technology	7- What technology do you regularly use yourself in your personal life? Prompt: Do you use technology such as email, chat forums etc. /Can you tell me how you normally use them? (i.e., for what purpose)? Do you use technology such as Twitter, Facebook, blogs, wikis etc./For what purpose?
	Understanding of Wikipedia	8-What is your understanding of Wikis such as Wikipedia? (added) Prompts: To what extent do you think you are familiar with Wikipedia? Do you know how it works? Can you explain it?
Using technology in EFL classes	Perceptions	9-What do you think of using technology in your EFL classes? Prompts: What technology do you think is beneficial for you as a teacher/your students? What benefits do you see in the use of technology? What limitations do you see in the use of technology?
	Behaviours	10- Which technologies do you use inside the classrooms? Prompts: How long have you been using them? How do you use them? (i.e. your purposes)
Technology and writing	Perceptions	11- What do you think of using technology in teaching writing? Which technologies do you think are beneficial for: <ul style="list-style-type: none"> -You as a teacher -Your students What benefits do you see in the use of technology? What limitations do you see in the use of technology?
	Behaviours	12- Which technologies do you use in writing classes? Why do you use them?

Topics	Sub-topics	Interview questions
Teaching English	Teacher beliefs	13- How do you think your students can best learn the English language? Prompts: What do you think are the most effective approaches? Why? What do you think are the least effective approaches? Why?
Teaching writing	Perceptions	14- How do you feel about teaching English writing to your students?
	Behaviours	15-Can you describe your approach to teaching writing? Prompts: How do you normally teach writing? What problems do you usually face? What problems do you think your students usually have? How do you think students can best overcome their problems with writing? (added)
Collaboration	Perceptions	16-What do you think of peer collaboration in language learning? Prompts: What benefits do you see in implementing collaborative activities for students? What limitations do you see?
In class collaborative writing activity	Perceptions	17-What do you think of conducting the textbook collaborative writing activities? Prompts: What benefits do you see in implementing collaborative writing activities for students? What limitation do you see? 18- How do you feel about in-class collaborative writing activities? Prompts: planning/managing the classroom/giving feedback etc.
Experience of collaboration	Teacher experiences	19-Can you talk about your experiences of doing collaborative activities in class? Prompts: How do you see the students' level of participation in group work? What problems can these activities cause in your classroom? How do you deal with these challenges? What is your role?
In class collaborative writing	Teacher behaviours	20- Can you tell me: (paraphrased) How do you usually plan these activities? How do you control/manage the brainstorming process and discussion? How do you keep track of a group's editing process during a collaborative writing activity in class? What challenges do you face? And how do you deal with these? Can you talk about your role during these activities?
	Teacher beliefs about error correction	21- How do you feel about peer review? Prompts: What benefits do you see of the process of peer review? What limitations do you see? Who should correct learner errors? (learners, their peers or teachers?) Why? Why not? What types of error should they correct (grammar, spelling, ideas)? Why ,why not? How should they correct their errors? Why?
	Student behaviours	22-How is the students' level of participation during collaborative writing in class? Prompts: How do students participate in collaborative writing activities? What kind of assistance do you offer?
Concluding marks	Closure questions	23-Do you have anything else you would like to say?

Appendix F: Teacher Semi-Structured Interview Schedule B

Topics	Sub-topics	Interview questions
(1) The use of wiki technology	Perceptions of wiki use	1-What do you think of using wikis for carrying out collaborative writing activities? Prompts: <ul style="list-style-type: none"> • Can you describe your feelings? Prompts: Do you like/dislike it? Probes: Why? (Paraphrased)
	Experience (added)	(2) Can you describe your own experience of using a wiki? Prompts: <ul style="list-style-type: none"> • Was it easy/difficult to use? Why? • What technical issues did you encounter? • How did you deal with these?
(2) Interacting with students via a wiki	Perceptions of interacting via a wiki	3- How do you feel about communicating online with your students? Prompts: <ul style="list-style-type: none"> • Do you like/dislike that? Why? • What are the things you like most about communicating online with them? Why? • What are the things you like least? Why?
	Experiences	4- Can you talk about your experiences whilst you were interacting with the students online? Prompts: <ul style="list-style-type: none"> • Was it easy/difficult? Why? (added) • What benefits do you see of interacting with them online? • What difficulties did you encounter? • How did you overcome these difficulties? • What assistance did you provide for students? • Can you talk about your role? Give examples of the assistance you offered. • What wiki rules did you set up? Why were they necessary?
(3) Carrying collaborative writing activities in online wiki	Perceptions	5- How do you feel about doing online wiki collaborative writing activities? <ul style="list-style-type: none"> • How do you feel about <ol style="list-style-type: none"> a. Planning these activities b. Managing the brainstorming process c. Managing the online contribution/discussion d. Giving online feedback to students (language /content) e- reading students' drafts on the wiki
	Experiences	6-Can you describe your experiences of <ol style="list-style-type: none"> a. Planning online activities b. Managing the online brainstorming process c. Managing the online discussion and contributions d. Giving students feedback (content/language) e. Reading students' drafts on the wiki
(4) Students' online writing behaviours	Students online behaviours	7- How well did the students work together online? Can you talk about this? 8-Describe some instances when you observed some or few students, who did not participate in the wiki. Can you give reasons for this based on what you observed?
(5) Concluding question		12- Do you have anything else that you would like to say about your experiences of using wikis to carry out collaborative activities?

Appendix G: Student Semi-Structured Interview schedule

Topics	Sub-topics	Interview questions
The use of wiki technology	Perceptions	1-What do you think of using wikis for doing collaborative writing activities? Prompts: <ul style="list-style-type: none"> • Can you describe your feelings? Prompts: do you like/dislike it? Probes: Why? (Paraphrased)
	Experience (added)	2- Can you describe your own experience of using wikis? Prompts: <ul style="list-style-type: none"> • Was it easy/difficult? Why? • What technical issues did you encounter? • How did you deal with these?
Interacting with teachers via a wiki	Perceptions	3-How do you feel about communicating online with teachers via wiki-based collaborative writing activities? Prompts: <ul style="list-style-type: none"> • What do you think of her online presence? • Do you like/dislike interacting with her via a wiki? Why?
	Experience	4-Can you describe your own experience of interacting with the teacher via a wiki? <ul style="list-style-type: none"> • Was it difficult /easy? Why? • What were the benefits of having a teacher present in the wiki context? • What were the drawbacks of having a teacher in the wiki context? • What challenges did you face while interacting with her? • What kind of assistance did she offer to your group?
Perceptions of interacting with friends via a wiki	Perceptions	5-How do you feel about communicating online with your classmates in wiki- based collaborative writing activities? <ul style="list-style-type: none"> • What do think of working with them online? • Do you like/dislike interacting with them via a wiki? Why?
	Experience	6- Can you describe your own experience of interacting with your classmates via wiki? <ul style="list-style-type: none"> • Was it difficult/easy? Why? • What were the benefits of interacting with them via wiki? • What were the drawbacks of interacting with them via wiki? • What challenges did you face while interacting with them?
Perceptions of wiki-based collaborative writing activities (i.e., the phases of collaborative writing)	Perceptions	7-How do you feel about doing online wiki collaborative writing activities? Prompts: <ul style="list-style-type: none"> • How do you feel about: <ol style="list-style-type: none"> 1. Doing online brainstorming (i.e., sharing your ideas with others)? 2. Writing your drafts on the wiki? 3. Reading your friends' drafts on the wiki? 4. Giving content feedback to others on the wiki? 5. Giving language feedback to others on the wiki? 6. Receiving content feedback from others (teachers/friends) on the wiki? 7. Receiving language feedback from others (teachers/friends) on the wiki?
	Experiences	8-Can you talk about your own experience when you engaged in all these phases?
Concluding question		11-Do you have anything else that you would like to say about your perceptions of using wikis to carry out collaborative activities?

Appendix H: Stimulated Recall Interview

A Sample of stimulated recall interview schedule

Questions:

Q1-Why did you create your front page and post your instructions on that page? Can you explain your purpose for doing so?

Q2- On the page here you have shared some websites with students. What was the purpose?

VIEW EDIT

FrontPage

last edited by [redacted] month(s) ago Page history

Dear students ,

This is our wiki , here we are going to create a poster about Kuwait (your textbook activity on page 75&76). Try your best to be creative and write a very attractive poster. I am so excited to read your posters . before writing , take time to read the question very crefully and every group should work on its sub-topic . Also go to these suggested websites which are written in your textbook, I think these websites will help you as refernces if you need more iformation about your sub-topics.

www.visit-kuwait.com
en.wikipedia.org/wiki/Kuwait

also try to use the folloing online dictionary , if you want to check the meaning of words in Arabic :
<http://dictionary.cambridge.org/>

Wiki interaction	By
<u>Miss Susan said at 6.47 p.m. on Mar 11,2014</u> Girls try to work on electronic dictionary it is going to help you in finding word meaning it is really easy and also use the website I want you to read these websites and collect information do not copy and paste be creative write in your own style girls and if you have other website suggest that to your group member they will benefit from that.	T

Q3- I have a follow up question; you asked students to use these websites so can we talk about this?

Q4- At the beginning of the activity you seem to encourage students to work on their pages and to ask you questions if they needed some assistance. Why did you not tell them to ask their peers? They are supposed to work in groups are not they? Here is one of your comments:

Wiki interaction	By
<u>Miss Susan said at 2.42 p.m. on Mar 7, 2014</u> Please all groups should work on its page and I want you to Finish the activity on time I will check what you are doing from time to time regularly and ask me if you need any assistance you can ask me in the class as well	T

Q5: I have a follow up question: why did you ask them to ask you in class as well, why not only in the wiki?

Q6: Here, you asked them first in this post to divide the work amongst themselves, then you intervene again with another post telling them how to divide the work. Could we talk about this?

Wiki interaction	By
<p><u>Miss Susan said at 9.00 p.m. on Mar 11, 2014</u> Girls you can divide the work if you feel that you are not sure about what you are supposed to write about. If you want discuss that and then start writing your section</p>	T
<p><u>Miss Susan said at 9.13 p.m. on Mar 14, 2014</u> Hello group 2 : here what you are going to do : Reem: write about the national dress of Kuwaiti men and Women Aseel: write about Kuwaiti religious holiday and celebrations such as Eid Sarah : write about kuwaiti traditional marriage Salma: write the conclusion about how Islam affects our culture in general mention briefly what all other girls have talked about (clothes,marriage and Eid) Get to work and good luck darling</p>	T

Q7: I realised you were posting many instructions for students rather than leaving them to manage their work. For example here, can you explain your behaviour here?

Wiki interaction	By
<p><u>Miss Susan said at 6.32 p.m. on Apr 2, 2014</u> The purple is too light fix it please</p>	T
<p><u>Miss Susan said at 4:52 p.m. on Apr 11, 2014</u> Girls, please try to have the same font and font size for the whole page (Except for the headers of course, it is okay if they're slightly larger than the text). It will make it looks neater. I would also suggest having all the paragraphs have the same color. But if you want to keep it colorful, have each paragraph in a different shade of a specific color. Like each paragraph could be dark blue, regular blue, light (but not too light) blue. → <u>Aseel said at 4:02 p.m. Apr 12, 2014</u> I did that teacher</p>	T
<p><u>Miss Susan said at 6:13 p.m. on Mar 9, 2014</u> I suggest you to make the topic like separate paragraphs not juts one big paragraph. For example, write separate paragraphs with the heading you can follow something like this : The nationale address of kuwaiti men and women Marriage in Kuwait Formal celebration in kuwait General conclusion about the previous points Also find pictures to make it attractive</p>	T
<p><u>Salma said at 6:35 p.m. on Mar 7,2014</u> Teacher I wrote a sentence about our topic the culture of Kuwait, is it nice? → <u>Miss Susan said at 12:10 p.m. on Mar 8,2014</u> Yes it is a good start but I think it would be better to start by defining the meaning of culture first</p>	S

Q8-Why were you insisting of having students participate? On your front page and on group 2's page, you posted these posts for students:

Wiki interaction	By
<u>Miss Susan said at 6:21 p.m. on Mar 7, 2014</u> Girls start writing your sections??? Why no one has participated yet it is your job??	T

Wiki interaction	By
<u>Miss Susan at 5:59 p.m. on Mar 20, 2014</u> Salma and Aseel where are you please start your sections, your friends have started	T

Wiki interaction	By
<u>Miss Susan at 6.59 p.m. on Mar 11, 2014</u> Start your wiki page please everyone should write good sentences. The task asks you to produce a poster about your country it should be easy for you do your best!! please girls participate at least write a sentence per day I will check your writing	T

Q9-I have a follow up question: why did you ask for just one sentence per day?

Q10: I also observed you deleting and adding to your students' texts. Can we talk about that?

Q11: Can you explain your students' behaviours in the wiki? They were adding to, not deleting or editing each other's mistakes. Can you tell me more about that?

Appendix I: Detailed Procedures for Data Collection

Table 4 the research procedure

Week	Time	Cases	Activity	Who is involved?	
<i>Week 1</i> 16 th Feb	Sun 16 th	Case 1&2	1. Distributing information sheets 2. Consent forms	Teachers, students and researcher	
	Mon 17 th	Case 3			
	Tues 18 th	Cases 1 & 2	1. Teacher background interviews 2. Student background questionnaires	Teachers and researcher	
	Wed 19 th	Case 3		Teachers, researcher and students	
	Thur 20 th	Cases 1 & 2	1. Teacher training sessions and wiki activities	Teachers and researcher	
<i>Week 2</i> 23 rd Feb	Sun 23 rd	Case 3	1. Teacher training session and wiki activities	Teachers and researcher	
	Mon 24 th		School holiday (Kuwait national and liberation days)		
	Tue 25 th				
	Wed 26 th Thur 27 th				
<i>Week 3</i> 2 nd March	Sun 2 nd Mon 3 rd	Case 1 & 2	1. Student training session and wiki in-class activities (The school poster).	Teacher, students and researcher	
	Tues 4 th Wed 5 th	Case 3			
	Thur 6 th	Cases 1, 2 & 3	1. Distributing students' and teachers' personal wiki login details & wiki activity sheets		
<i>Week 4</i> 9 th March	Sun 9 th Mon 10 th		Online wiki collaborative writing activity	Teachers and students	
	Tues 11 th Wed 12 th				
	Thur 13 th				
<i>Week 5</i> 16 th March	Sun 16 th Mon 17 th				
	Tues 18 th Wed 19 th				
<i>Week 6</i> 23 rd March	Sun 23 rd Mon 24 th				
	Tues 25 th Wed 26 th				
	Thur 27 th				
<i>Week 7</i> 30 th March	Sun 30 th Mon 31 st				
	Tues 1 st	Cases 1 & 2		Stimulated recall interviews	Teachers and researcher
	Wed 2 nd Thur 3 rd	Case 3		Stimulated recall interviews	Teachers and researcher
<i>Week 8</i> 6 th April	Sun 6 th Mon 7 th				
	Tues 8 th Wed 9 nd				
	Thur 10 rd				
<i>Week 9</i> 13 th April	Sun 13 th Mon 14 th				
	Tues 15 th Wed 16 th				
	Thur 17 th				

Week	Time	Cases	Activity		Who is involved?
<i>Week 10</i> 20 th April	Sun 20 th				
	Mon 21 st				
	Tues 22 nd				
	Wed 23 rd				
	Thur 24 th				
<i>Week 11</i> 27 th April	Sun 27 th				
	Mon 28 th				
	Tues 29 th				
	Wed 30 th	Cases 1 & 2		Stimulated recall interviews	Teachers and researcher
	Thur 1 st	Case 3		Stimulated recall interviews	Teachers and researcher
<i>Week 12</i> 4 th May	Sun 4 th				
	Mon 5 th				
	Tues 6 th				
	Wed 7 th	Cases 1 & 2		Teacher experiences and perceptions interviews	Teachers and researcher
	Thur 8 th	Case 3			
<i>Week 13</i> 11 th May	Sun 11 th				
	Mon 12 th				
	Tues 13 th	Cases 1 & 2		Student interviews	Researcher and students
	Wed 14 th	Cases 1 & 2			
	Thur 15 th	Case 3			
	Thur 16 th	Case 3			

Appendix J: Information Sheets

Participant Information Sheet (Teachers)

Re: Investigating EFL teachers' and students' interaction in online wiki collaborative writing activities: Exploring the collaborative process, their experiences and perceptions.

Dear Teachers,

My name is Maha Alghasab and I am a PhD student in the Department of Education at the University of York, in the UK. I am currently working on a PhD project, under the supervision of Dr. Zöe Handley, exploring the use of wiki technology in English as a foreign language classes (EFL).

I am particularly interested in exploring how you and your students would interact when utilising online wikis for collaborative writing activities, and your perceptions and experiences of using this particular technology in your EFL classes. I am looking for three secondary school EFL teachers and their students (aged 17-18) to participate in my research. If you participate in this research, you and your students will receive free technical training sessions on how to use wiki technology, which may help you to expand your knowledge of one type of technology, which could then be used in your EFL classes. Furthermore, your students may also benefit from this research, as they will have the opportunity to practise writing in an online wiki environment, and will then receive feedback from you and their classmates, which would then enhance their writing and collaborative skills.

The study will last for 13 weeks and if you wish to participate in this research, you will be asked to:

- Participate in a background interview in week 1 (approximately 25 minutes).
- Attend a wiki technical training session in weeks 1 & 2; note that it is my intention that the sessions will be audio-recorded to allow me to evaluate the effectiveness of the training.
- Evaluate the wiki training sessions.
- Engage with your students in online wiki activities for 8 weeks (from week 4 till 11).
- Participate in interviews (approximately 15 to 20 minutes) fortnightly.
- Participate in an interview (approximately 15 or 20 minutes) to elicit your perceptions and experiences (week 12).

After reading the information sheet, you will have the opportunity to accept or refuse to participate. You will be able to withdraw your agreement to participate at any time. After conducting the last interview in week 12, you will have a one-week period to withdraw from the study and all the data you have provided will be deleted and disregarded if you decide to withdraw. All the information you provide will remain confidential and any data associated with your names or your students' names will be transferred to a word document, and all names will be altered and anonymised. All data will be anonymised before it is communicated to anyone else, including my thesis advisory panel. Any information that could be used to identify participants will not be kept longer than absolutely necessary, and will be deleted and destroyed after the completion of data collection phase. Raw data will be stored in a locked cupboard, and all your wiki electronic data will be password protected. The anonymised data will only be used for research purposes, and will be presented at conferences, in academic

research journals and other academic publications. As a participant, you will have the right to check the audio-recording transcripts of the interviews, observations, field notes, online wiki transcripts, and the final report. In addition, you will have the right to comment and delete items and information that you do not want me to include in the final report. Furthermore, you will have the right to ask questions about the study and receive satisfactory answers. Students will also be volunteers and will have similar rights and their data will be handled in the same way. Students who do not give their consent to participate will have the opportunity to attend training sessions and practise the in-class wiki training activities; however, data will not be collected from them. This research has been reviewed by, and received ethics clearance from the University of York Research Ethics Committee, and there are no risks associated with taking part in this research.

It is entirely up to you to decide whether or not to take part in my research. If you decide not to participate, I highly respect your decision. If you decide to take part in my research and after participating you change your mind, you are free to withdraw at any time and any data collected would then be destroyed.

If you have any further questions, please feel free to contact me:

Name: Maha Alghasab
Email: ma716@york.ac.uk
Tel: 07587855001/ 00965-67760407

If you have any concerns or complaints, you can contact:

Name: Dr. Zoe Handley (Supervisor)
Email: zoe.handley@york.ac.uk

Name: Dr. Emma Marsden (Chair of the Ethics Committee)
Email: emma.marsden@york.ac.uk

Thanks for your cooperation!

Participant Information Sheet (Students)

Re: Investigating EFL teachers' and students' interaction in online wiki collaborative activities: Exploring the collaborative process, their experiences and perceptions.

Dear students,

My name is Maha Alghasab and I am a PhD student in the Department of Education at the University of York, in the UK. I am currently working on a PhD project, under the supervision of Dr. Zöe Handley, exploring the use of wiki technology in English as a foreign language classes.

You are being invited to take part in my PhD project as entitled above. It is important for you to read and understand why this research is being done and what it will involve. If you are happy to participate, you will be asked to sign a consent form.

I am particularly interested in exploring how you and your teacher would interact when utilising online wikis for collaborative writing activities, and your perceptions and experiences of interacting via this particular technology in your EFL classes. If you participate in this research, you will receive free technical training sessions to learn how to use wiki technology. Further, you will have the opportunity to practice your English out of the class in an online wiki environment, which may then help to develop your writing skills. Also, you will have the opportunity to interact online with your teacher and peers, and you may receive constructive feedback on your writing.

The study will last for 13 weeks and if you wish to participate in this research, you will be asked to:

- Fill out a background questionnaire (week 1).
- Attend two training sessions in a school computer lab; note that it is my intention that the sessions will be audio-recorded to allow me to evaluate the effectiveness of the training (week 3).
- Evaluate the training sessions.
- Participate in online wiki activities with your classmates and teacher for 8 weeks (week 4 till 11).
- Participate in an interview, which will last approximately 20 minutes (week 13).

All the information you provide will remain confidential and data that is associated with your names or your teachers' names will be transferred to a word document. All names will be altered and anonymised. All the data will be anonymised before it is communicated to anyone else, including my thesis advisory panel. Any information that could be used to identify participants will not be kept longer than absolutely necessary and will be deleted and destroyed after the completion of the data collection phase. Raw data will be stored in a locked cupboard, and all your wiki electronic data will be password protected. The anonymised data will only be used only for research purposes, and will be presented at conferences, in academic research journals and other academic publications. As a participant, you will have the right to check the audio-recording transcripts of the interviews, observations, field notes, online wiki transcripts, and the final report. In addition, you will have the right to comment and delete items and information that you do not want me to include in the final report. Furthermore, you will have the right to ask questions about the study and receive satisfactory answers. This

research has been reviewed by, and received ethics clearance from the University of York Research Ethics Committee, and there are no risks associated with taking part.

It is entirely up to you to decide whether or not to take part in my research. If you decided not to participate, I highly respect your decision. If you decide to take part in my research and after participating you change your mind, you are free to withdraw at any time without penalty being imposed on you, and any data collected will be deleted and destroyed. After conducting the interview in week 13, you will have a one-week period to withdraw from this study. You can also stop working online for a while if you have any exams. Students who do not consent to participate will have the opportunity to attend the training sessions and to practise the in-classroom wiki training activities. However, data will not be collected from them.

If you have any further questions, please feel free to contact me:

Name: Maha Alghasab
Email: ma716@york.ac.uk
Tel: 07587855001/ 00965-67760407

If you have any concerns or complaints, you can contact:

Name: Dr. Zoe Handley (Supervisor)
Email: zoe.handley@york.ac.uk

Name: Dr. Emma Marsden (Chair of the Ethics Committee)
Email: emma.marsden@york.ac.uk

Thanks for your co-operation!

Appendix K: Consent Form

Re: Investigating EFL teachers' and students' interaction in online wiki collaborative activities: Exploring the collaborative process, their experiences and perceptions.

I confirm that I have read and understood the participant information sheet for the above study.

I understand that the training session will involve audio recording, and I have the right to view the transcripts and comment on them.

I also understand that I may request to review and comment on the transcript of the audio recording of the interviews.

I understand that the transcript of the online interaction will be anonymised, and that I have the right to request to view it and comment on it.

I understand that I will have the opportunity to ask questions regarding the study and receive satisfactory answers.

I understand that my participation is voluntary and that I may withdraw at any time by informing the researcher, without penalty being imposed on me. I am aware that I can withdraw from the study one week after conducting the last interview, and that any data collected would then be destroyed and deleted.

I understand that only the researcher, her supervisors and other researchers will have access to the anonymous data provided, and that the data will be confidential.

I understand that the anonymous data will be used for research purposes, and may be used publically by the researcher for academic conferences and publications.

I understand that any information, which can be used to identify participants, will not be kept longer than necessary and will be destroyed after the completion of the data collection phase.

I understand that this research has been reviewed by, and received ethics clearance from the University of York Research Ethics Committee.

Name of the participant:.....

Name of the researcher:.....

Date:.....

Date:.....

Signature:.....

Signature:.....

Appendix L: Training Sessions

Teacher Training Session:

For the teacher technical training, the teachers and the researcher met in the school's computer lab to conduct two consecutive training hours. There were some objectives and steps that were considered when training the teachers.

Objectives:

At the end of this session, teachers should be able to:

- Write on the wiki page.
- Edit existing content in the wiki.
- Post comments and reply to other's comments.
- Check editing through the page history.
- Insert videos, photos and hyperlinks, and upload resources.
- Engage in a collaborative writing project with each other.

Procedures: The training session:

- All teachers were given a handout on the practical steps of using wikis.
- A Power Point presentation was presented by the researcher, and this involved practising and demonstrating the wiki platform. This specifically included:
 - Training for logging into accounts in the wiki.
 - Using the comments space for communicating with students.
 - The process of editing, adding, deleting, saving the wiki page and checking the page history.
 - Dividing the class wiki into group pages.
 - Uploading resources, videos and pictures.
 - Connecting pages using hyperlinks.
- After presenting these steps, teachers were asked to practise the previous steps using the following PB wiki platform, which was designed specifically for the training sessions <http://eflteachersa12.pbworks.com>.
- They were asked to engage in a collaborative writing project, which aimed to discuss their experiences of teaching English to EFL students.
- The researcher and one of ICT teachers were available to respond to teachers' technical problems and to answer their questions with regards to the technical use of a wiki.
- After the training session, a 5-minute interview was conducted with each teacher individually, to evaluate the effectiveness of the training. Further, all their questions and comments in relation to the training session were recorded and considered.
- Teachers were asked to plan their textbook collaborative writing activities (student textbook p.75 & 76, see Appendix A), and to add the wiki as a tool to conduct the activity.

Student Training Session:

The students and the researcher met in the computer lab. The teachers were asked to join the training session to receive further training, and to offer help in classroom management. The following objectives and procedures were considered in the training sessions. Similar objectives and procedures as those presented in the teacher training sessions were considered for the student technical wiki training. However, the students were given a different collaborative writing activity.

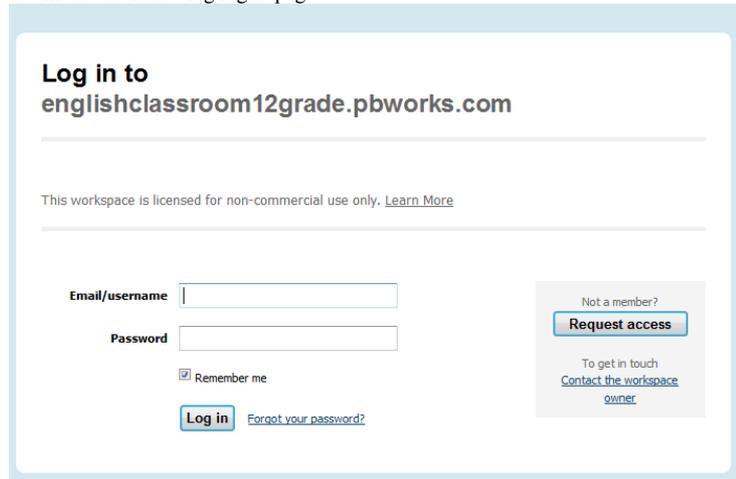
Procedures:

- Students received similar technical training steps to those presented for the teacher training.
- After demonstrating the main technical steps, students were given their personal login details to the following PBwiki platform (<http://grade12english.pbworks.com>) that was designed specifically for the student training sessions. Every class had its own private wiki space.
- Students and teachers were asked to join the wiki activity, which was conducted in the school computer lab. They were asked to design a brochure about their school. This training activity lasted for two consecutive training days. In every class, students were divided into wiki groups and every group was responsible for writing about a sub-topic (e.g., writing about the school campus, department and facilities, school activities and the atmosphere for learning).
- During the activity, all the students' comments and questions were considered, and at the end of the training activity, they were given a training evaluation form to assess the training.
- After ensuring that all the students' and teachers' questions were answered and that they were satisfied with the training, they were given their personal login details for the wiki platforms that they were supposed to use to carry out the textbook activity (producing a poster about Kuwait). These are the wiki platforms
 - Class A : <http://efl1class12ku.pbworks.com>
 - Class B: <http://efl2class12ku.pbworks.com>
 - Class C: <http://efl3class12ku.pbworks.com>
- The activity sheet was distributed to the students along with their user names and passwords.

Appendix M: Training Hand-out

Please follow these steps in order to start using wiki

- **Step 1: Login**
 - a. Please make sure that your computer is connected to the Internet.
 - b. Please go to the following wiki website:
<http://grade12english.pbworks.com>
 - c. You will see the following login page.



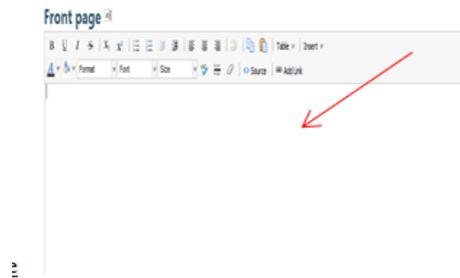
- d. Please enter your personal username and password, and then press 'Login'
- **Step 2: Writing and saving:**
 - a. Once you have clicked on 'Login', you will see the following front page of your class wiki:



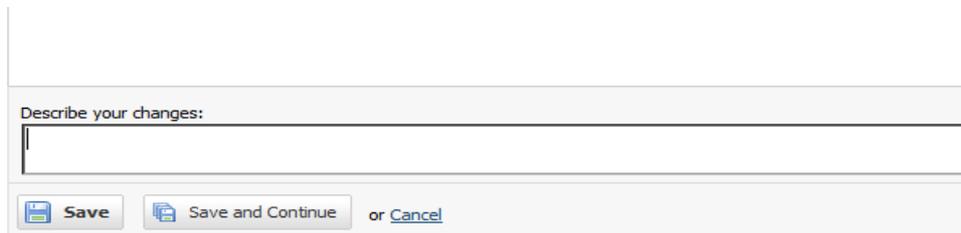
- b. From the navigator on the front page you can navigate and go to your groups and/or the other group's pages. Just click on your page.



C. You can easily edit, write and save your writing. Click on the editing and you will notice that the screen has changed to a written Word document, as follows:

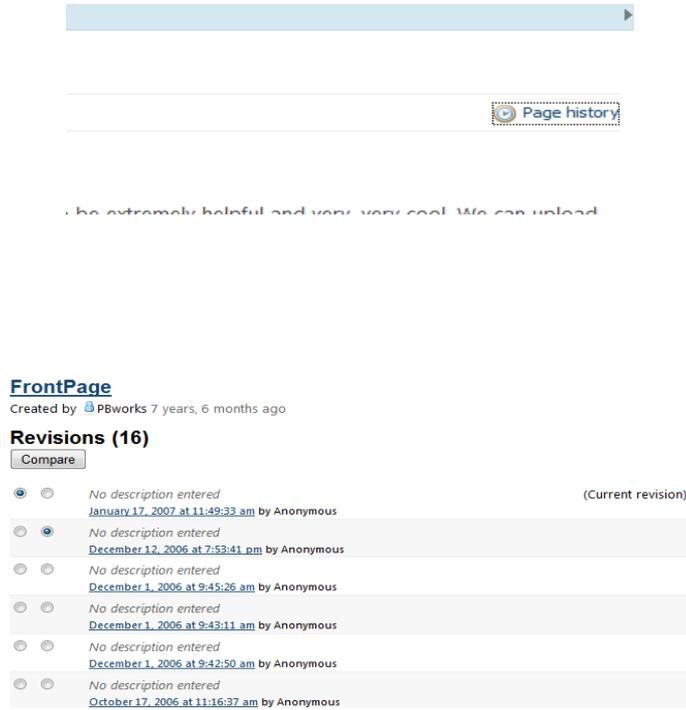


d. Now you can write your text, describe your changes if you would like to do so, and then click save.



- **Step 3: Editing and checking the page history:**

a. In order to check the editing history, go to 'page history.' Here you will see all the revisions that you and your friends have made, as in screenshot (8). You can compare versions to see the revisions, and you can also see the name of the editor.

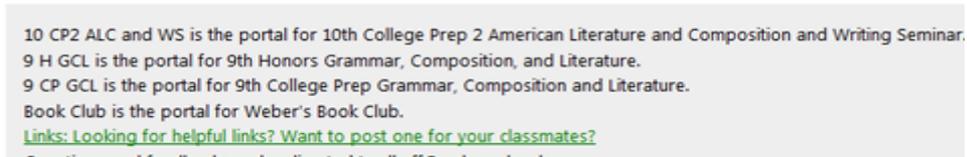


b. If a sentence or text has been inserted, it will appear in a green colour. If someone has deleted a sentence or text, this will appear in a red colour, as follows:

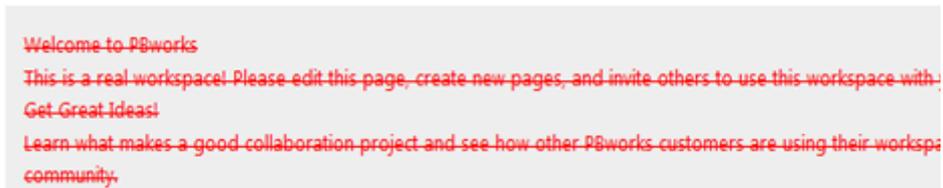
Inserting sentence:

Comparing versions of FrontPage

Showing changes between December 1, 2006 at 9:45:26 am (~~crossed-out~~) and December 12, 2006 at 7:53:41 pm (underli



Deleting sentence



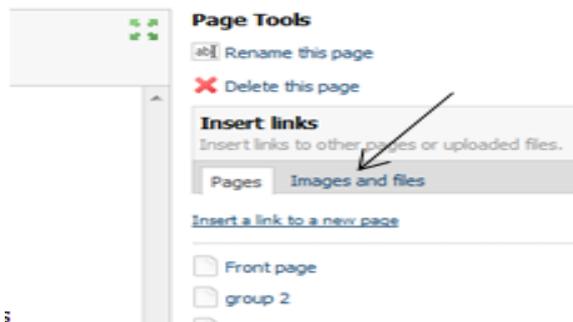
- **Step 4: Discussion:**

- a. Every wiki page has a discussion forum where you can post your questions, and make comments on discussions for others in your group, as appears in the following screenshot:
- b. If you want to add a comment, simply type it and click on 'add comment'.

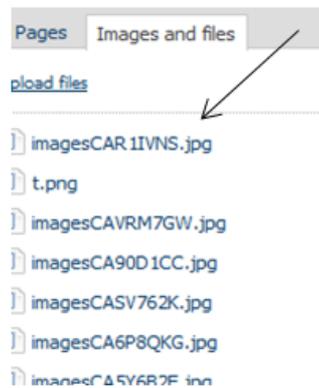


- **Step 5: Inserting pictures and videos on the wiki:**

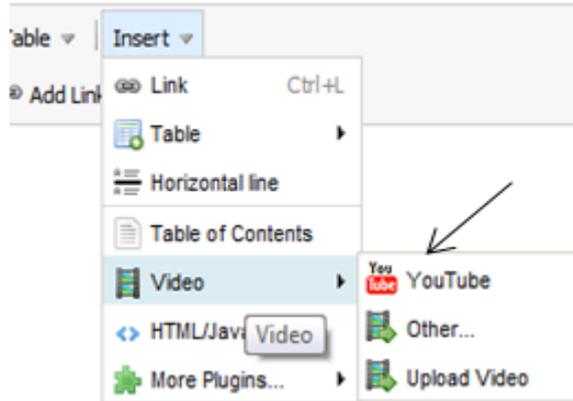
- a. Click on 'editing' and the page will change again to the 'doc writing' mode. You will find on the right side of the wiki an 'insert' icon. Choose "images and files."



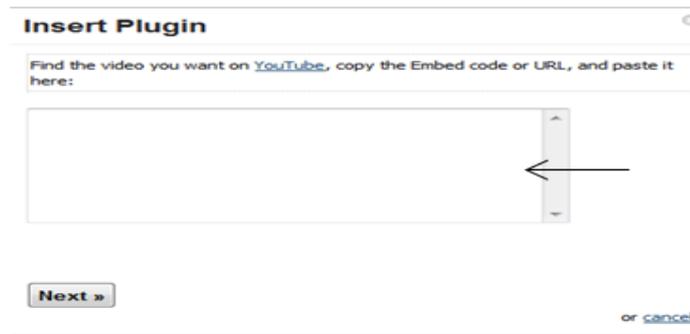
- b. Once you click on it you will see the following screenshot. Here you can upload your picture to your wiki page. Just click on the picture file.



c. If you want to add a video from 'YouTube'. Click on 'insert' then 'YouTube', you will see this screenshot.



d. You can either go to YouTube or choose the video or copy the embedded URL of the video and paste it. Then just click next.



Copy the embedded URL for YouTube videos

- Click share/ then copy the embedded link



- **Step 6: Connecting your page to another group's page:**

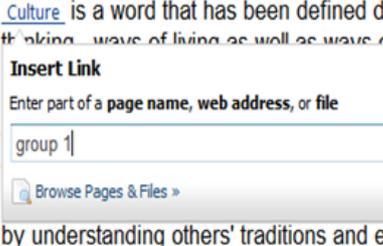
a. You can connect your page to another group's page if you feel that their page can expand on and provide details for any word, term or topic in your text. For example, if another group has written about the meaning of 'culture' and you have this word in your text, and you want to provide the reader with more detail, instead of writing, you can simply connect this word to the other group's page by following these steps.

1. Highlight the word and then click on 'add link.'
2. You will see the following box. You just need to write the name of the page, or if you want to connect it to a web page, just copy and paste the web address.
3. Then just click 'enter' and the word will be underlined.

(1) **Culture** is a word that has b ways of living as well as w includes traditions, behav every countrv . all people

(2) 

(3) 

(4)  by understanding others' traditions and e

(5) Click Enter

Appendix N: Students' Checklists Training Evaluation Form

Table 5 Checklists for Students:

Please tick the category that describes your level of confidence:

Skills	<i>Not confident at all</i> 1	<i>Not confident</i> 2	<i>Somewhat confident</i> 3	<i>Confident</i> 4	<i>Very confident</i> 5
1- Logging into the wiki platform					
2- Editing the wiki page					
3- Saving the wiki page after editing it					
3-Adding pictures to the wiki page					
4- Inserting videos to the wiki page					
5- Connecting wiki pages using hyper links					
6- Checking other group's pages					
7- Checking the page history					
8- Comparing different versions of the wiki page					
9- Posting a wiki thread					
10- Replying to a wiki thread					

Do you have any further comments about the training session?

.....

.....

.....

.....

.....

.....

.....

Appendix O: Teachers' Training Evaluation Interview

Interview questions:

- 1- How did you find the training session?
- 2- What did you appreciate about the training?
- 3- Did you experience any difficulties/challenges during the wiki practice activity? If yes, can you please say what these are?
- 4- Do you feel that you require any additional training?
- 5- If yes, please explain what additional training you require?

Thanks for your time!

Appendix P: Training Evaluation Results

Teachers expressed their positive attitudes about the training. They declared that using wikis was easy and the training sessions were clear enough. The factors that the teachers appreciated were: moving from easy to more complex steps, giving them time to practise what was explained, giving them the chance to ask questions, demonstrating the skill ‘e.g., editing and saving’ in the PowerPoint presentation, and engaging together in a classroom training activity with other teachers. For example, when Miss Susan was asked whether she needed further training, she acknowledged that the training was enough and that they need to practice what they have learnt alone, in a real wiki project.

“No not really ahm, I think we need to practise that alone at home, and then we will manage to login. The training was enough. Using a wiki does not need that much training. It is very easy and was demonstrated very well by you. I think we need to practise what you taught us and to get involved in a real project with students” (Miss Susan).

Miss Wesam and Miss Danah expressed similar views. For example, Miss Wesam stated that the training was easy and that she appreciated moving from easy wiki skills to more complex ones. Miss Danah felt that the training was clear and that using a wiki was very easy for her.

“I really appreciated that it was clear and took one step at a time (...). The training was really organised and moved from the easy steps, which are login, edit, save, checking the page history, and posting comments in reply, to the more complex steps, which are inserting pictures, video files and linking pages” (Miss Wesam).

“The training was really helpful, as it showed us the main functions of the wiki and I found it very easy. It does not need anything, just edit and save and then view the changes from the page history or just read and post a comment” (Miss Danah).

Students were also given an evaluation form to evaluate the effectiveness of the training sessions. The evaluation form consisted of a number of actions and students were asked to rate their self-confidence in performing these actions on the wiki platform. In addition, they were given an opportunity to write comments on the training.

Generally, the students were also positive about the effectiveness of the training. Their responses to the evaluation form reflect their high confidence in practising the wiki skills such as editing, saving and commenting on the page, and other skills trained.

However, the lowest mean was given to statement number 6, which is related to their confidence in linking wiki pages together. It seemed that this was the most difficult wiki skill, based on the students' self-evaluation. Table 6 presents the overall results of the students' evaluation of the training.

Table 6 Student evaluation of the training

Statement	Mean			SD		
	Class1	Class2	Class3	Class1	Class2	Class3
1- Entering wiki web	4.05	4.5	4.38	.921	.618	.650
2- Modifying wiki page	4.29	4.22	4.23	.561	1.060	.832
3- Saving wiki page after modifying it	4.38	4.5	4.38	.669	.707	.650
4- Add picture to wiki page	4.19	4.06	4.08	.750	1.110	1.256
5- Add video to wiki page	4.24	4.06	4.23	.768	1.110	.832
6- Link wiki pages together	3.71	2.94	3.46	1.007	1.474	1.506
7- Explore wiki pages	4.1	4.11	4.23	.889	1.023	1.092
8- Exploring other group pages	4.14	4.22	4.23	.910	1.060	1.092
9- Comparing two pages on the wiki	4.19	4.22	4.31	1.030	1.060	1.109
10- Writing comments on a wiki page	4.48	4.83	4.54	.680	.383	.660
11- Replying to comments on a wiki page	4.62	4.83	4.62	.590	.383	.506
Average mean and SD	4.22	4.23	4.24	0.80	0.91	0.93

Appendix Q: Coding Frameworks

Table 7 Student-student discussion threaded interaction

Behaviours	Definition	Example
Organising the work	Students plan the wiki writing together by structuring the wiki text, setting shared tasks, seeking and giving feedback on planning.	"(...) I suggest writing first about three main parts (...). I suggest to write about culture in relationship between men and women, culture in social life (...)"
Initiating the writing activity	Students ask other peers to start the writing activity.	"Who wants to start I suggest you laila"
Seeking teacher feedback on planning	When students seek teacher feedback on their proposed wiki text structure or ideas they are going to write.	"(...) teacher I will write about Kuwaiti traditional clothes what do you think it is (sic) going to be interesting? (...)"
Seeking teacher permission	When students assumes the teacher's authority and check whether they can write about a particular point.	"To me I would write about Kuwaiti traditions in wedding I (...) to write about our culture, shall I start miss??"
Seeking peers permission	Students ask other group members whether or not they can perform an action.	"(...) This is the main thesis statement shall I write it ??"
Seeking peers feedback	When students seek feedback on their ideas from their peers (content).	"Girls waiting your feedback on my writing"
Seeking teacher feedback	When students seek feedback on their ideas from their teacher (content).	"Teacher I added my section, can you tell me your opinion"
Seeking peers help	When students seek help from other peers.	"As planned I did write about (...) but need your help to add on it plz (...)"
Seeking teachers help	When students seek help from the teacher.	"Miss Susan my mind is empty (...) help plz suggest ideas"
Giving feedback	Giving feedback on other's ideas, writing, suggestions or proposals.	"The introduction is really good"
Giving help	Students help each other; usually occurs when one student seeks help in the activity.	"I checked your writing and editing some of your mistakes (...)"
Elaborating	Extending and elaborating on own or other's ideas or knowledge.	Laila I think we also need to think about different behaviours and norms that all Kuwaiti people share and how these are different from other (...)"
Suggesting	Offering suggestions about writing, mainly related to content.	I suggest writing about (...)"
Requesting clarification	When students ask others to make their point clearer. Usually occurs when someone makes an unclear point	Oh yes why not?? When saying numerous foods that means many so plural why you say OMG ☺"
Giving clarification	When one student clarifies her standpoints for other students usually occurs after requesting clarification	"I do not know but it is my first time sees food as foods! That's why I said OMG"
Agreeing	When students express agreement with what other suggested	"I agree with you"
Refusing	When students refuse other's editing or contribution	Reem stop editing my section in the wrong way"
Seeking teachers language related feedback	When students direct questions about the language to the teacher	Teacher I was revising the text it is written people follows?? is that right or wrong ?"
Seeking peers language related feedback	When students initiate a discussion about language by directing questions to their peers	oh Sue it is my first time to notice the difference but why mixture ?? is using mix wrong here , I mean we can say a mix of(...)"
Giving language related feedback	When students respond to seeking language feedback posts initiated by others by providing language feedback	I have checked that teacher I think when writing two verbs we have to add "ing" so rather than writing like attend we have to write like attending"
Seeking task instruction from the teacher	Students ask the teacher to guide them as to how to complete the task.	Hi teacher (...) what shall we do next, discuss or planning writing first or it can be both of them right?"
Acknowledging	Recognising other's suggestions/teachers' instructions or feedback.	Okay teacher"

Behaviours	Definition	Example
Expressing emotions	When students express their feelings about working with others.	Girls I really enjoyed working here
Thanking	When students express their gratitude to teachers or others.	Thanks girls
Other talk	When students talk to each other or to the teacher about other unrelated issues such as giving excuses.	Miss I was busy with exams
Praising	When students comment positively on what others have done/written.	(...) the page colour and the font they are really nice good job dear
Greeting	Students greet each other.	Hi girls
Apologising	Students apologise to each other or to the teacher for a specific behaviour.	(...) my teacher I am really sorry

Table 8 Teacher/ Student-student wiki text interaction

Editing behaviours	Definition
Adding new ideas	Students add new information about a subtopic not discussed in the previous paragraphs
Expanding on own existing ideas	A student adds/elaborates on the sub-topic that she has already written about
Expanding on another's existing ideas	Students add/ elaborate on the sub-topic that has already been written by others
Deleting	Removing text or existing information; this can be a sentence or paragraph
Synthesising another's existing ideas	Student writes a sentence or a paragraph that ties together previously written information (mostly ideas written by others)
Correcting own existing text	Student corrects her own language mistakes (grammar, mechanics and spelling, choice of vocabulary)
Correcting another's existing text	Student corrects other language mistakes (grammar, mechanics and spelling).
Correcting students' text	When teachers correct the student text (included grammar or content)

Table 9 Teachers' intervention/support

Behaviours	Definition	Example
Giving task instructions	Teacher helps students to organize their work by giving task directions, providing suggestions for planning and page format, distributing the work, setting rules, informing students that their work will be checked.	"It is really too early to start writing your poster so try to discuss first"
Promoting participation	Teacher invites students to participate and this can involve notifying inactive students	"Mei and Mohrah you have not participated yet can you write or post at least one comment come in!(...)"
Managing time	Reminding students about the deadline	"(...)the deadline is approaching you need to hurry up"
Providing resources	Teacher provides students with resources such as websites, blogs or an online dictionary.	"Salma check out Mark's blog: 248am.com he has a section in the side called events check it out (...)"
Promoting sharing of resources	Teacher encourages students to share resources with others.	"(...) if you have other website suggest that to your group members"
Notifying students about edits	Teacher asks students to check her editing in the page history.	Girls please check what I have edited through the page history
Promoting giving language related feedback	Teacher asks open questions or reflects on students' language use to stimulate S-S language related discussion.	Girls Laila has added lots of sentences can anyone read it and edit her writing I noted some grammatical mistakes it would be nice to discuss these mistakes.
Giving language related feedback	Teacher posts language related feedback that focuses mainly on the form rather than the content.	Salma , it depends on the context, for example if you want to write about clothes in the past, you have to say that "people wore"
Promoting editing behaviours	Teacher encourages students to edit self or other's text.	I will leave the editing for you next time
Promoting giving help	Teacher asks students to provide assistance to those who are seeking help.	Come in girls Amy is the only one who is working .. help her please
Promoting giving feedback	Teacher intervenes to ask students to mutually share their feedback with others (content feedback).	Why no one has replied to Laila's suggestion please reply girls and start writing your wiki page
Giving feedback	Teacher posts feedback on students' work, mainly on the content of their writing. This mainly occurs after a 'student seeking teacher feedback' post.	S- Teacher I wrote a sentence about our topic the culture of Kuwait, is it nice? T: Yes it is a good start but I think it would be better to start by defining the meaning of culture first
Giving help	Teacher assists students when they ask for assistance. This occurs usually after a 'student seeking teacher's help' post.	S:Teacher (...) I feel that my mind is empty plz help T: Since you should do the last part I think you need to summarise what others have written and then add more interesting points ... Google it
Eliciting ideas	Teacher asks students to post their ideas about the topic.	Only Sarah and Reem have told me what they are going to write about where are the rest of students can you tell me your ideas ?
Encouraging	Teacher posts words of encouragement to motivate students.	"Keep up the good work"
Promoting group cohesion	Teacher strengthens the relationship between group members by increasing their respect for the work as a group.	"(...) remember you are doing a group activity so work with others"
Social talk	Teacher creates a safe wiki context by talking in a friendly manner to the students.	"my lovely students, today the weather is extremely nice"
Greeting	Teacher greets the students	Dear my lovely students
Expressing emotions	Teacher expresses general feelings about students' work/behaviours.	I am so angry about you girls

Appendix R: Letter Of Permission

75 / 30 / EA0098394/05/5000

No: ٢٩٥

Date: 13/2/2014

Director General of Hawally educational area

Subject : Facilitate research process.

The student / Maha Bader Alghasab is registered in York University , British Kingdom, to conduct a study entitled: "EFL teachers and students interaction in online wiki activities: exploring the collaborative process, perceptions and experiences".

Please facilitate the task of the above student in order to perform the research by using the following instruments (questionnaire) + (interview schedule) stamped by the department of Educational Research on secondary school students in your area during the current semester 2013/2014 .

With my sincere greetings and appreciation.

Director of Educational Research Department



أ. إبتيسام الحاي
مدير إدارة البحوث التربوية



ص ب : ١٦٢٢٢ القادسية - ٣٥٨٥٣ الكويت - تلفون : ٤٨٢٨٣٢١ - ٤٨٤٢٤٠٤ - فاكس : ٤٨٣٧٩٠٩ - ٤٨٤٢٤٠٤
P.O. Box : 16222 - QADSI AH - 35853 - KUWAIT - Tel. : 4842404 - 4838321 - Fax : 4837909 - 4842404

Appendix S: Case analysis

Case 1 Miss Susan's class

Miss Susan background information

Miss Susan (pseudonym) is a young English language teacher who has seven years of teaching experience. For her, the use of technology is necessary and it is mainly a self-taught process. She has been developing herself in using technology since she was an undergraduate student at university. She has almost eleven years computer experience and assessed herself as having an intermediate level in some of the information technology (IT) skills. As a teacher, she has attended in-service training workshops such as process writing and the International Computer Driving Licence (ICDL) training workshops, and successfully got the certificate.

Technology has a place in Miss Susan's personal and professional life as a teacher. For her, the use of various technologies makes life easier, enjoyable and provides opportunities for social communication. She reported that emails, Microsoft Office packages, electronic dictionaries, Twitter, Facebook and blogs are the main technologies that she uses in her personal life and career as a teacher. She has a basic knowledge of wikis. She declared that she uses Wikipedia as a reading resource, but does not know how wikis generally work and has never participated in a wiki.

As a language teacher, she stated that she officially started using technologies in her classroom two years ago. She appears to be positive towards using some technologies such as iPad, PowerPoint, educational websites and electronic dictionaries. However, she seems to be resistant to using any particular technologies in teaching writing. She declared that she has never used any technologies to promote students' writing, but she mentioned that she usually encourages students to use the Internet and electronic dictionaries at the pre-writing stage.

Despite the curriculum's inclusion of some pair and collaborative writing activities, Miss Susan mentioned that she rarely conducts these activities in her classroom. According to her, these activities are not part of assessment or exams and there are other activities which are much more important than these. She declared that group work activities are part of her lessons but students are not necessarily asked to write a collaborative text. She expressed her uncertainty about the peer review process and

acknowledged that she rarely encourages students to do so. This is because she believes that the best and most accurate answers are given by the teacher. This is evident from her classroom policy, which states, “the teacher is always right. If the teacher is wrong then refer to rule 1” (Miss Susan, background interview).

The students

Salma, Reem, Aseel and Sarah (pseudonyms) were the members of the wiki group. Based on the students’ background questionnaire data, Salma and Sarah have >90% grades in English language and ICT subjects, whereas Reem and Aseel have >70% in English language; in ICT Reem got 71% whereas Aseel got 88%. In Kuwaiti government schools, these two subjects are obligatory, and therefore all students have more than five years of computer experience. Their daily usage rate ranges from <1 to >3 hours per day (see table 10).

Table 10 Case1 students’ background information

Student	English language	ICT	Computer experience/ daily usage	IT skills	Purpose	Time of interaction in English		Collaborative writing performance
						Teacher	Peer	
Salma	92.3%	90%	>5 years/ < 1 hour per day	Highly confident in: Browsing the Internet/ typing in English	Chatting/YouTube reading Wikipedia learning English blogging	>30%	>70%	Excellent
Reem	76.9%	71%	>5 years Between 1 to 3 hours daily	Somewhat confident in: typing in English/ browsing the Internet	Chatting/emails blogging /Facebook Twitter /learning English	51-70%	<30%	Excellent
Aseel	75%	88%	>5 years > 3 hours daily	Not confident in: typing in English Highly confident in: Browsing the Internet	Chatting /blogging learning English	>30%	30-50%	Poor
Sarah	94%	95%	>5 years > 3 hours daily	Highly confident in: Typing in Arabic and English / browsing the Internet	Chatting /emails blogging/Facebook Twitter /reading Wikipedia learning English	30-50%	>70%	Excellent

As shown in the table 10, the most reported purposes of using a computer were chatting, learning English, blogging, Twitter, Facebook, writing emails or watching YouTube videos. Sarah and Salma declared their familiarity with the most well-known wiki, Wikipedia; they use it as a reading resource. In terms of their IT skills, some of them expressed their confidence in browsing the Internet, and typing in English and Arabic, whilst other reported their lack of confidence in typing in English.

The questionnaire data indicated that students engage in group-work activities in their English language class from three to four times a week. Students reported their frequent interaction with their peers, except Reem who declared that she interacts more with the teacher. All students have engaged in collaborative writing activities and reported their general positive attitudes towards this activity. Their responses to the questionnaire varied with some students highly agreeing on collaborative behaviours whilst other disagreeing. For example, Salma and Reem who assessed themselves as having excellent performance in collaborative writing reported their inclination towards collaborative behaviours than others. The questionnaire showed that both students agreed that collaborative writing activities are important to developing their writing. They highly agreed on listening to others, exchanging ideas with others and answering other's questions. However, they expressed their neutral response to the effectiveness of their peers' suggestions to improve their writing skills.

Aseel and Sarah reported different responses to the background questionnaire. Aseel reported some non-collaborative behaviour, whereas Sarah reported a mix of behaviours. For example, both students preferred writing individually over collaboratively. Aseel did not see any benefits of writing collaboratively and disagreed to listen and exchange her ideas with others whereas Sarah highly agreed to exchange her ideas with others, listen to their perspectives but was neutral about taking on board their suggestions and incorporate them into her text. Furthermore, Sarah disagreed to ask her peers' questions whilst Aseel was neutral.

Initiating the wiki activity

At the beginning of the wiki activity, the interaction followed a teacher-dominant pattern; Miss Susan intervened in the students' wiki activity by using the front page to give task instructions (screenshot 1). She edited the wiki front page and wrote a reminder about the textbook activity. She also used the front page to provide links to other websites that could assist students in their activities (e.g., an electronic dictionary and websites). In addition, she utilised the threaded discussion space of that front page to communicate with all the groups (extract 1).

Screenshot 1 wiki front-page case 1



Extract 1

Wiki interaction	By	Types of comments /edits
<p><u>Miss Susan said at 2.42 p.m. on Mar 7, 2014</u> Please all groups should work on its page and I want you to finish the activity on time I will check what you are doing from time to time regularly and ask me if you need any assistance you can ask me in the class as well</p>	T	Giving task instructions + managing time
<p><u>Miss Susan said at 6.47 p.m. on Mar 11, 2014</u> Girls try to work on electronic dictionary it is going to help you in finding word meaning it is really easy and also use the website I want you to read these websites and collect information do not copy and paste be creative write in your own style girls and if you have other website suggest that to your group member they will benefit from that.</p>	T	Giving task instructions + promoting sharing resources
<p><u>Miss Susan said at 6.59 p.m. on Mar 11, 2014</u> Start your wiki page please everyone should write good sentences. The task asks you to produce a poster about your country it should be easy for you do your best!! please girls participate at least write a sentence per day I will check your writing</p>	T	Giving task instructions + promoting participation

Miss Susan's posts in extract 1 involve some ground rules that guide students into how to work in the wiki. These rules direct students to work on their groups' pages, finish on time, ask the teacher any questions and alert students to the fact that their work will be regularly checked by the teacher. She also directs them to use external links that she has added on the wiki front page (screenshot 1). The online dictionary is recommended by her for checking the meaning of words, whereas websites are suggested as a resource for reading. She sets some common writing rules for all groups, such as being creative, avoiding plagiarism (i.e., copy and paste), as well as writing a sentence per day.

At interview Miss Susan suggested that since there was no teacher's front page on the wiki, she deliberately used the front page to communicate with all the groups. She mentioned that she was trying to show the students that she was there. She pointed out that if students felt that the teacher was not present, they would be passive.

Every group has its own page but I do not have one hahah (...) I took that chance to use it (i.e., the front page) to communicate with the whole group. I need a space to post messages for the whole class and this was the best place to do so (...). I want them to know that I am there, that I am looking at their work and I will be checking this most of the time. If they feel that there is no teacher there, they will not work. (Miss Susan, stimulated recall interview).

During the wiki activity

Observing students' online interaction suggests their passive engagement at the beginning of the activity. They did not work directly on their wiki page until Miss Susan intervened and posted a comment asking them to participate (see extract 2).

Extract 2

Wiki interaction	By	Types of comments/edits
Miss Susan said at 6:21 p.m. on Mar 7, 2014 Girls start writing your sections??? Why no one has participated yet it is your job??	T	Giving task instructions/Promoting participation
Salma wrote at 6:33 p.m. on Mar 7, 2014 <u>Kuwaiti culture is very much related to Islamic culture because Kuwait is Islamic country. People follows Islamic rules and there are many norms in the society.</u>	S	Adding new ideas
Salma said at 6:35 p.m. on Mar 7, 2014 Teacher I wrote a sentence about our topic the culture of Kuwait, is it nice? → Miss Susan said at 12:10 p.m. on Mar 8, 2014 Yes it is a good start but I think it would be better to start by defining the meaning of culture first	S	Acknowledging + Seeking teacher feedback
	T	Giving feedback
Aseel wrote at 12:17 a.m. on Mar 8, 2014 <u>Kuwait culture is similar to other middl east countries and people are stell follwoing these norms and share many behaviours.</u>	S	Expanding on another's existing ideas
Sarah wrote at 9:54 a.m. on Mar 9, 2014 <u>Culture as a word means the norms and behaviours that people share in a specific society. Every society has its own cultural norms and behaviours. People in every countires believe that culture represents their identitu and history. These norms and behaviours have transfered from one generation to the other.</u>	S	Expanding on another's existing ideas
Sarah said at 9.56 a.m. on Mar 9, 2014 Teacher me too I participate ☺ your suggestion to write about the meaning of culture is really great, I tried to think about its meaning and came up with amazing definition from my own understanding of the word , hope you read it and tell me what do you think ?? → Miss Susan said at 10:15 a.m. on Mar 9, 2014 Excellent Sarah, I liked the way that you define culture it is really a very comprehensive definition and the most interesting thing that you came up with your own definition from your understanding, good!! I suggest you to do the following :read your definition again try to think whether the points are related together try to avoid your spelling mistakes this can be done by using the dictionary as we do in the class check the spelling of the word before writing it in the wiki I will give you chance to do these things and will check your editing	S	Acknowledging + Seeking teacher feedback
	T	Encouraging + Giving feedback + Giving task instructions+ promoting editing behaviours
Salma wrote at 3:37 p.m. on Mar 9, 2014 <u>(...) one of the most well known cultural behaviour in Kuwait is the greeting. Greeting in Kuwait is differnt and people took this habit from Islamic rules. The greeting starts with the word "Aslamo eli kom" which is Islamic greeting that our prophet Mohamad peace be upon him advise us to use.</u>	S	Expanding on another's existing ideas

After Miss Susan's notifications, Salma added a new idea to the wiki page and posted a comment to seek feedback from the teacher. Miss Susan replied to Salma's post and directed her to start the page by defining the word culture. Although, there were no collaborative behaviours between students at the threaded mode, Aseel collaboratively

engaged with Salma's writing and expanded it. Working as a group, Sarah considered the teacher's feedback for Salma and further expanded on Salma's and Aseel's writing by adding the meaning of culture. Similar to Salma, she then directed a 'seeking feedback comment' to Miss Susan who was active in responding and providing constructive feedback. As shown in her post, she encouraged and gave positive feedback to Sarah and asked her to revise her definition. She asked her to check the coherence of her ideas and the spelling of what she wrote. Rather than promoting S-S collaboration, she encouraged her to use a dictionary and to edit her text. This sequence between Sarah and the teacher was followed by Salma's collaborative writing behaviours; she expanded on what Sarah wrote by writing about a cultural behaviour (i.e., greetings).

Although the students were collaboratively co-constructing the text together in the form of adding and expanding on each other's ideas, Miss Susan intervened in the students' interaction later on and suggested ways of organizing the work (extract 3).

Extract 3

Wiki interaction	By	Types of comments/edits
<p><u>Miss Susan said at 9.00 p.m. on Mar 11, 2014</u> Girls you can divide the work if you feel that you are not sure about what you are supposed to write about. If you want discuss that and then start writing your section</p>	T	Giving task instructions
<p>→ <u>Reem said at 9. 32 p.m. on Mar 11, 2014</u> It is a great idea teacher I will write about Kuwaiti traditional clothes what do you think do you think it is going to be interesting for other reader to know about the traditional clothes of Kuwaiti people?</p>	S	Acknowledging + Seeking teacher feedback on planning
<p>→ <u>Miss Susan said at 9.43 a.m. on Mar 12, 2014</u> Sure Reem but do not forget to attach picture it is going to be nice</p>	T	Giving feedback + Giving task instructions
<p>→ <u>Sarah said at 7:03 p.m. on Mar 12,2014</u> To me I would write about Kuwaiti traditions in wedding I will be so happy to write about our culture , shall I start miss ??</p>	S	Acknowledging + Expressing emotions + Seeking teacher permission
<p>→ <u>Miss Susan said at 7:13 p.m. on Mar 12, 2014</u> Yes good idea start planning Sarah, I am sure you will be creative</p>	T	Giving feedback+ Giving task instructions + Encouraging
<p><u>Miss Susan said at 11.53 p.m. on Mar 12, 2014</u> Only Sarah and Reem have told me what they are going to write about where are the rest of students can you tell me your ideas ?</p>	T	Promoting participation+ eliciting ideas
<p><u>Miss Susan said at 9.13 p.m. on Mar 14, 2014</u> Hello group 2 : here what you are going to do : Reem: write about the national dress of Kuwaiti men and Women Aseel: write about Kuwaiti religious holiday and celebrations such as Eid Sarah : write about kuwaiti traditional marriage Salma: write the conclusion about how Islam affects our culture in general mention briefly what all other girls have talked about (clothes,marriage and Eid) Get to work and good luck darling</p>	T	Giving task instructions

The first suggestion for organizing the work was the division of the work. Miss Susan gave explicit task instructions and encouraged students to discuss what everyone was going to write about. This post was followed by two posts in reply from Reem and Sarah, who acknowledged the teacher's suggestion and sought content feedback on their ideas. They both showed dependency on the teacher; this was evident from Sarah's post whereby she sought the teacher's permission to start writing. Miss Susan provided individual feedback to both students; she encouraged both students and directed Sarah to plan her text individually. The lack of responses from others (i.e., Aseel and Salma) led Miss Susan to post a comment to question their ideas. However, Aseel and Salma remained passive and did not reply to Miss Susan's post. The absence of response was

followed by Miss Susan's post, whereby she provided explicit task instructions by dividing the work amongst the students.

Miss Susan clarified in the interview that she was intentionally structuring students' work due to her belief that every student has to have a responsibility. Organizing students' work was seen as a way of setting boundaries and increasing participation. She seemed unsure about students' abilities to organise the work between them as she declared that some students always wait for her instructions, and accordingly, she assumed the authority and structured the activity for them.

Oh yeah to set some boarders, to set some guidelines, because if they do not assign the sub-tasks to themselves they might actually fight over the work (...) so rather than helping each other, some of them may hang the work or take over the work for themselves. That is why I am the teacher, I have to make it clear who should do what (...) I need to post commands; this will help the students to know exactly what I want them to do instead of leaving them to working in the wrong way. ahm I know there are some girls who are always waiting me to tell them what to do and what not to do (Miss Susan, stimulated recall interviews).

Observing the wiki page of this particular group indicated that there were no collaborative behaviours between students at the organisational levels in relation to how they were going to plan their wiki page. When interviewing students, some students declared that they preferred to receive explicit task instructions from the teacher rather than agreeing amongst themselves. For example, Salma and Reem liked the way Miss Susan intervened in their activity because this helped them to understand what they needed to do. Salma also reported that this ensured fairness whilst working in the online context.

Her presence is really important you know. She was guiding us and posting instructions for us. Before we started writing she divided us into group and also told everyone what she wanted us to do and to write about. I like this because if the teacher did not do that, we would be wondering how to start and who should do what (...) This helped us to understand our responsibilities (...) If the teacher had not been there, we would not have been able to manage the whole project alone (...) If there had been no teacher guidance in the wiki, we would not have worked as well as we did. There would have been unfair distribution of work (Salma).

(...) At the beginning I was struggling to start but she distributed the work among us, which was really better because everyone knew what to write about and focused on her paragraph (Reem).

Miss Susan's post about the division of the work seemed to lead to students' engagement in non-collaborative behaviour at the text mode. In contrast to extract 3 where they were co-constructing the text, they started to add their ideas to the wiki individually in a parallel mode (i.e., every student start to work on her sub-section). For example, Sarah and Reem both added new ideas under two different sub-topics that were assigned to them by the teacher namely: marriage in Kuwait and the national dress of Kuwaiti respectively (extract 4). There was no threaded mode interaction in the form of discussion about each other writings.

Extract 4

Wiki interaction	By	Types comments/edits
<p><u>Sarah wrote at 09:34 p.m. on Mar 17, 2014</u> <u>Marriage in Kuwait:</u> <u>Families always treated marriage as an important occasion. Lots of money is usually spends on it. in the past, marriage is a means of strengthening bonds between families of similar social and financial levels and having similar creed.</u></p>	S	Adding new ideas
<p><u>Reem wrote at 6:33 p.m. on Mar 19, 2014</u> <u>National address of Kuwaiti men and women:</u> <u>Most Kuwaiti men wear a dishdasha which is a long sleeved floor length with a button down opening to the waist. Light materials in white or ivory are typical in summer , while heavier choices in gray and blue are usually wear in winter. Long or short white cotton pants are worn under the dishdasha. The long side pockets suffiecient for their wallet, mobile and mesbah and so forth.</u></p>	S	Adding new ideas

After posting their wiki texts, Sarah and Reem posted follow-up comments to seek content feedback from Miss Susan on what they had written (see extract 5). Whilst directing their comment seeking content feedback at the teacher, both students appeared to claim ownership of the wiki text by their use of the first person pronoun 'my section' and 'my part'.

Extract 5

Wiki interaction	By	Types of comments/edits
<p><u>Sarah said at 9:35 p.m. on Mar 17, 2014</u> Teacher I added my section, can you tell me your opinion? let me know if I did not add pic I will do latter on</p>	S	Seeking teacher feedback
<p>→ <u>Miss Susan said at 3:53 p.m. on Mar 18, 2014</u> Very good it is really a good start from you Sarah , however, if the wiki page is full of written information without picture this will be boring and unattractive for the reader but as you said leave it till the end and now focus on writing as much as you can and as accurate as possible , also I realized that you used in the past and you still using “is”, please remember when you use the phrase in the past that means you have to write the verb in the past simple. In order to check the changes that I have made check that from the page history</p>	T	Encouraging + Giving feedback + Giving task instructions + Giving language related feedback + Notifying students about edits
<p><u>Miss Susan wrote at 3:50 p.m. on Mar 18, 2014</u> Families always treated <u>treat</u> marriage (..)a lots of money is usually spends <u>spent</u>. in <u>In</u> the past, marriage is <u>was</u> a means <u>mean</u> of strengthening bonds between(...)</p>	T	Correcting students' text
<p><u>Reem said at 6:41 p.m. on Mar 19, 2014</u> Miss I started my part which is the Kuwaiti men and women clothes but it is still uncomplete (sic) I will read more and add more information check that plz and tell me about it</p>	S	Seeking teacher feedback
<p>→ <u>Miss Susan said at 5:55 p.m. Mar 20, 2014</u> Very good Reem I can see that you have added and started your section keep it up and I hope that your friends give you further comment. Your section needs more details so try to expand on your ideas. The only way that you can do so is to read more about your section collect information and summarize them in your own style and go ahead and edit your section. But really excellent Reem</p>	T	Encouraging + promoting feedback giving + Giving feedback + Promoting editing behaviours + Giving task instructions

The interaction was mainly student initiated whereby students initiated comments to the teacher rather than to their peers. Miss Susan was responsive; she provided individual feedback to each student. In her feedback, she encouraged both students and emphasised writing an accurate text. She highlighted grammatical mistakes in Sarah's text and corrected the text accordingly. She also advised Reem to expand her ideas by collecting more information about the topic, summarising it and writing it in her own style. Although Miss Susan seemed to encourage S-S collaboration by implicitly encouraging other students to give feedback on Reem's writing, this encouragement was not considered by the other students. There were no comments in reply to what Reem had written.

Although Salma and Aseel were active, as they had already participated at the beginning of the activity (see extract 2), they became passive when the teacher divided the work.

They did not work on their sub-assigned topic until Miss Susan told them (see the following extract).

Extract 6

Wiki interaction	By	Types of comments/edits
<u>Miss Susan said at 5:59 p.m. on Mar 20, 2014</u> Salma and Aseel where are you please start your sections, your friends have started	T	Promoting participation
<u>Aseel wrote at 7:18 p.m. on Mar 20, 2014</u> <u>Formal celebrations in Kuwait:</u> <u>In Kuwait, people has two major religious holidays that are cause for celebration among all others. (...) Kuwaiti people also went to Eid prayer at the morning at 6 o'clock and pray in the mosque. They exchange kissing and greeting and also congratulations for Eid coming (...)</u>	S	Adding new ideas
→ <u>Aseel said at 7:33 p.m. on Mar 20, 2014</u> Sorry Miss I was busy with exams here we go my section is added. plz my sweet friend read it and give it a comment	S	Apologising + Other talk+ Seeking peers feedback
→ <u>Miss Susan said at 4.40 p.m on Mar 21, 2014</u> That's good Aseel still needs work revise it	T	Giving feedback + Promoting editing behaviours
→ <u>Aseel said at 5:06 p.m. on Mar 22, 2014</u> Teacher in my text I used at the morning when you asked me to revise I was confused between at the morning and in the morning .also is people plural or singular I heard that we can use has with the word people?? Hope you help me in revising my section	S	Seeking teacher language related feedback + Seeking teacher help
<u>Miss Susan wrote at 6:00 p.m. on Mar 22, 2014</u> in <u>In</u> Kuwait, people has have two major religious holidays that are cause for celebration. among <u>Among all others all other celebrations,(...) at</u> in the morning (.) exchange exchange.	T	Correcting students' texts
→ <u>Salma said at 8:52 p.m. on Mar 24, 2014</u> Miss Susan my mind is empty I don't have more information I feel that my friends has written what I was about to write help plz suggest ideas	S	Seeking teacher help
→ <u>Miss Susan said at 12:57 p.m. on Mar 25, 2014</u> Salma check out Mark's blog:248am.com he has a section in the side called events check it out and join the work and add on your friend's sections	T	Giving help + Providing resources + Giving task instructions

When the teacher instructed Salma and Aseel, they started to participate in the wiki activity by posting their excuses. Aseel explained that she was busy with her exams whilst Salma sought help from the teacher since she felt that she was unable to add more to her friends' writing. Similar to Sarah and Reem in extract 4, Aseel added her text under her sub-section, "formal celebrations in Kuwait", which was assigned by the teacher. However, rather than seeking feedback from the teacher, Aseel initiated a collaborative interaction (i.e., seeking feedback from her peers) which was not reciprocated by others. No one from her group posted a comment on her writing. Miss

Susan, in the following post, provided the feedback to Aseel and asked her to revise her section. This was followed by Aseel's post whereby she sought language related feedback from the teacher and relied on her in editing the text, as she seemed to struggle in figuring out the mistakes. Rather than posting a comment in reply to Aseel's language related enquiry, Miss Susan acted directly on the wiki page and edited Aseel's text. Following Aseel's participation is Salma's post whereby she sought help from the teacher; it seems that Salma was struggling to join the activity because the teacher assigned her writing and summarising what others had written (see extract 3). Rather than promoting collaboration, Miss Susan shared an online resource (i.e., a blog) to help Salma in writing her own section. The previous extract does not present any form of collaborative behaviours between students. Although Aseel attempted to engage with others in collaboration, this initiative was ignored by other students but was reciprocated by the teacher. Further, Aseel's addition was done in a parallel mode under her section rather than editing or expanding on what others had written.

Whilst writing their wiki text, students not only sought content feedback from the teacher on their ideas, but they were also constantly seeking language related feedback. For example, Salma, Sarah and Aseel used the threaded mode to communicate with Miss Susan, taking turns posting their language related questions (extract 7).

Extract 7

Wiki interaction	By	Types of comments/edits
<p><u>Sarah said at 6:38 p.m. on Apr 2, 2014</u> Miss I wrote grilled kebdeh to mean the traditional food that people can eat, is there other way to say it in English? Help plz it looks funny when I wrote half of it in English and the rest in Arabic.</p>	S	Seeking teacher language related feedback
<p>→ <u>Miss Susan said at 11:22 p.m. on Apr 2, 2014</u> You can simply say Grilled liver</p>	T	Giving language related feedback
<p><u>Sarah wrote at 8:55 p.m. on Apr 3, 2014</u> as well as grilled Kebdah liver.</p>	S	Correcting own existing text
<p>→ <u>Sarah said at 8:55 p.m. on Apr3, 2014</u> I edited that miss thanks so much</p>	S	Acknowledging + Thanking
<p><u>Aseel said at 5:23 p.m. on Apr 17, 2014</u> Teacher I was revising the text it is written people follows?? is that right or wrong ?</p>	S	Seeking teacher language related feedback
<p>→ <u>Miss Susan said at 6:41 p.m. on Apr17, 2014</u> No you need to correct it, it should be people follow , people is a plural noun</p>	T	Promoting editing behaviour + Giving language related feedback
<p><u>Aseel wrote at 8:02 p.m. on Apr 17, 2014</u> (...)People follows follow the Islamic rules(...)</p>	S	Correcting another's existing text
<p><u>Salma said at 1:54 p.m. on Mar 18, 2014¹⁵</u> Teacher I will write about the traditional clothes of Kuwaiti people, I just have one question if we want to write about this do we use past simple or present simple or both are ok? Because sometimes I want to say something that people used to wear but they don't wear nowadays. Hope you answer my question</p>	S	Seeking teacher language related feedback
<p><u>Miss Susan said at 10.00 p.m. on Mar 18, 2014</u> Salma , it depends on the context, for example if you want to write about clothes in the past, you have to say that "people wore" but if you want to say what people usually wear in Kuwait you have to use present simple and say that "people usually wear". Remember that we have usually and people (plural) so we need to use present simple without "s". Go ahead and write something I am sure you will be fine and I will be checking your writing</p>	T	Giving language related feedback + Giving task instructions

The previous interactions occurred between students and teacher. All the interactions were initiated by students and were structured as student initiation-teacher response-student's/teacher's edits, except the last sequence between Salma and Miss Susan which did not end with editing behaviour. There were instances of *linguaging* between students and the teacher. For example, Sarah initiated a language related inquiry; she seemed to struggle to find the appropriate word for her sentence. She considered using Arabic as inappropriate and therefore sought help from the teacher to find alternative vocabulary. Miss Susan responded to her and provided the required language related feedback. Following this, Sarah edited her text based on the teacher's feedback. Whilst

¹⁵ Here the teacher replied late to Salma's post, Salma had already added her text in extract 8

reading the text, Aseel also noted a grammatical mistake in Salma's text (see extract 2). She collaboratively questioned Salma's use of 's' with the verb 'follow'. Miss Susan responded to her by providing language related feedback, which helped Aseel to engage collaboratively with Salma's text by editing her grammatical mistake. Likewise, Salma informed the teacher that she was going to write about traditional clothes and to start this she initiated a question to the teacher, asking her about the simple past tense. The teacher provided the language related feedback by explaining to Salma the conditions for using the verb 'wear' in the simple past and present.

From the previous extracts, it is apparent that the interaction was structured between teacher and students rather than between students-students. Miss Susan did not encourage S-S collaboration, but rather she was responsive to students' individual questions and commented on each student's work individually. Interviewing her shows that she did that intentionally to help students to find the correct answers, to carry on the activity and to develop their individual writing skills for the exams. Also, she talked about her previous experience with her students' behaviours (i.e., their preference for getting an answer from her rather than from their peers).

Because students were asking me and I needed to respond to everyone individually. I did not want to ignore anyone because I knew they wanted me to answer their questions and if I left them without answers they might feel that I did not read their posts and I was not there at all, ahm so it is kind of encouraging, not encouraging, but to help them to work more and to show them that I care about their work and I care about this online homework. Also you know it is good for them in exams; they will remember their own mistakes (Miss Susan, stimulated recall interview).

Interviewing students illuminated the reasons behind the absence of collaborative dialogue (i.e., a form of languaging) between students in the threaded mode discussion. Some students declared that they preferred and trusted their teacher's feedback rather than their peers. For example, Aseel expressed her uncertainty about her peers' feedback and believed that the teacher would give better answers. Likewise, Sarah felt that her peers' language related feedback would be useless and that they sometimes edited mistakes wrongly. She declared that detecting and editing errors is the teacher's responsibility.

Sometime I do not trust their feedback because some of my group members are not that good in English and I always question their feedback. If the teacher is there I feel that teacher can give better feedback because she is our teacher (Aseel).

I feel that not all of their comments are really useful especially when it comes to language because some of them are not even good at grammar (...) one girl edited my mistake wrongly but fortunately the teacher was there. She noticed this and edited that correctly, so if the teacher had not been there who would have detected this mistake? (Sarah).

Although students were rarely sought from each other language related feedback, throughout the activity, there was some observed collaborative behaviour in the threaded mode in the form of seeking and giving content feedback. Extract 8 presents some examples.

Extract 8

Wiki interaction	By	Types of comments/edits
<u>Aseel said at 9:21 p.m. on Apr 7, 2014</u> Girls I wrote a section on Eid celebration can anyone help me with some more ideas? Suggest and I will write them	S	Seeking peers help
<u>Aseel wrote at 9:20 p.m. on Apr 7, 2014</u> (...)Also in Eid celebration , childrens get some money from neighbours, relatives and people around them. This money called "Al Eidiah" and it is given to the childrens when they greet adults and older people. As a way of showing happiness and great respect to this holy celebration, people gave childrens money to make them feel happy during this celebration.Childrens feel happy and they spend their money in buying sweets and toys(...)	S	Expanding on own existing ideas
→ <u>Sarah said at 1:45 p.m. on Apr 8, 2014</u> I read your section it is really good and interesting you can focus on traditional clothes for men and women in Eid I think it will add some interesting points.	S	Giving feedback + Suggesting
<u>Sarah said at 1:46 p.m. on Apr 8, 2014</u> My group I have already started my section about old Kuwaiti marriage, can you read it and let me know your opinion about it.	S	Seeking peers feedback
→ <u>Reem said at 2:45 p.m. on Apr 8, 2014</u> Good section I really like it but I suggest that you add more ideas so that the text becomes longer.	S	Giving feedback + Suggesting
<u>Salma said at 3:44 p.m. on Apr 18, 2014</u> Girls I have completed the introductory section can you tell me how it looks?	S	Seeking peers feedback
<u>Salma wrote at 3:42 p.m. on Apr 18, 2014</u> Most Kuwaiti men gather in "Al Dewaniya" which is a reception room in the house and separated from women's place. Al Dewaniya is an indispensable feature of kuwaiti social life. Only men are presented in Al Dewaniya and they sit together or the sofa or on the floor and talk casually and exchanges greetings. The owner of AlDewaniya should be hospitable and should entertainment his guests. Usually when gathering in Al Dewaniya, kuwaiti men wear formal clothes in formal occasions but some young men nowadays wear casual clothes.	S	Adding new ideas
→ <u>Aseel said at 12:35 p.m. on Apr 19, 2014</u> It is really good especially the sentences about Al Dewaniya but I think you have to add a conclude sentence stating that " in the next section the traditional clothes will be presented and discussed" I am saying this because I think in this way	S	Giving feedback + Elaborating + Suggesting+ Expressing

Wiki interaction	By	Types of comments/edits
the ideas will be related together. But it is really good I like it 😊		emotions

The previous wiki interaction can be characterised as reciprocal and student-centred with students taking turns exchanging their feedback on what others have written on the wiki page. Aseel expanded on her section, which was previously written (see extract 6). She initiated collaborative behaviour, directing a post to her peer, seeking help to elicit more ideas for her sub-section. Sarah engaged with Aseel's writing and post and collaboratively replied by suggesting an idea for Aseel's text. Despite Sarah's suggestion to write about the traditional clothes of men and women, the final wiki text showed that Aseel made no effort to incorporate Sarah's suggestion, but rather she wrote about the other well-known religious celebration 'Eid Al Adha'.

The interaction also includes Sarah's initiatives to collaborate with others by inviting her peers to read her sub-section (see extract 4) and by seeking their content feedback. Only one student (i.e., Reem) engaged with Sarah's text and provided feedback for her. However, her feedback seemed to be general and did not specify exactly what kind of ideas to add to the text.

Amongst these students, Salma seemed to struggle to work on her sub-section, which was assigned by Miss Susan in extract 3 (i.e., summarising other's ideas). Here, in this extract, she opted to participate by adding new ideas to the introductory part (see extract 2). Salma collaborated by seeking content feedback on her section from her peers. Aseel critically read what Salma had written and this is evident from her constructive feedback. Rather than writing directly on Salma's text, Aseel suggested adding a concluding sentence that could help link Salma's part with the others. Aseel also justified and explained her suggestion to Salma and at the same time expressed her positive view of Salma's writing. Salma was not only passive in replying to Aseel's suggestion in the threaded mode, but also the final wiki text did not demonstrate incorporation of Aseel's suggestions.

Interview data could explain the fact students ignored other peers' suggestion and the avoidance of criticising or commenting negatively on another's text. For example, Reem explained that she was the author of the text and would not necessarily accept all her peers' suggestions. She also believed that the teacher was the one who had the right to

judge the quality of the work. She felt that editing the ideas of others was not an acceptable behaviour and in order to be polite, one should avoid this behaviour.

The content is mine but if they were useful comments I considered them; if not I just ignored them. I would accept some comments but not all because if my writing was really not that good the teacher would have mentioned this (...) but I avoided editing the content because I wanted to be as polite as I could (Reem).

Sarah expressed her happiness when she received constructive yet convincing feedback from others. At the same time, she declared that sometimes she ignored other's feedback when they commented in a negative way.

I would really feel happy if it is right and if their ideas were convincing and I felt that yeah, I really need to change something, but sometimes some girls just wanted to say any things even if they were harsh comments, you know, this would really be annoying, ahm I would just ignore these comments (Sarah).

Throughout the activity, there were initiatives from some students to collaborate with others by engaging with other's writing and comments. For example, some students questioned the accuracy of another's text (extract 9), correcting another's existing text (extract 10), and commenting on another's language use (extract 11). Some of these behaviours resulted in non-collaborative behaviour.

Extract 9

Wiki interaction	By	Types of comments/edits
<u>Aseel wrote at 7:18 p.m. on Mar 20, 2014</u> (...)in Kuwait ,people has two major religious holidays that are cause for celebration among all others Eid al Fitr is an event filled with numerous foods(...)	S	Adding new ideas
<u>Salma said at 5.51p.m. on Apr 7, 2014</u> OMG is it okay to write food with "s" ??? girls → <u>Sarah said at 6:07 p.m. on Apr 7, 2014</u> Oh yes why not?? When saying numerous foods that means many so plural why you say OMG ☺ → <u>Salma said at 6:26 p.m. on Apr 7, 2014</u> I don't know but it is my first time sees food as foods! That's why I said OMG	S	Seeking peer language related feedback
	S	Giving language feedback + Requesting clarification
	S	Giving clarification

Salma read Aseel's text and questioned the use of 's' with the word 'food'. The interaction occurred between Salma and Sarah who had the highest language abilities in the group. Salma used the 'OMG' abbreviation which stands for 'oh my God' to express

her surprise about using 's' with the word 'food'. Although Salma appeared unsure, Sarah insisted that the word is grammatically correct when she replied by providing language related feedback, "oh yes why not", suggesting that she did not see any problem in the sentence. Sarah then made her answer accountable; she explained to Salma why she thought that the word was correct and asked Salma to explain her standpoint. Salma seemed unsure about herself, and explained that it was her first time seeing the word 'food' in the plural. Although there seemed to be ambiguity and students seemed unsure about each other's feedback, Miss Susan did not intervene to confirm or disconfirm their feedback. Students were initiating collaborative behaviours, however, these behaviours did not result in constructing new knowledge that went beyond their individual abilities. Also, this dialogue did not lead to improvement in the final text (i.e., editing).

When an editing behaviour occurred throughout the activity, others refused it. Consider the following interaction between Reem and Sarah.

Extract 10

Wiki interaction	By	Types of comments/edits
Reem wrote at 5:11 p.m. on Apr 1, 2014 (...)marriage as an important occasion. Lots of Many money is usually spend creed. In Kuwaiti culture, the family families used to choose the couples see each other's in on the marriage day of marriage(...)	S	Correcting another's existing text
Sarah said at 5: 22 p.m. on Apr 1, 2014 Reem stop editing my section in the wrong way, I noticed that my section has edited by you and there were some mistakes please work on your own text	S	Refusing
→ Miss Susan said at 5:39 p.m. on Apr 2, 2014 Stop annoying each other's and FOCUS ON THE TASK!	T	Giving task instructions

Reem collaborated at the text level by editing Sarah's added text (extract 4). The interaction represents Sarah's negative attitudes towards Reem's editing behaviour. Although Reem's attempt involved some correct edits, Sarah considered her editing as wrong edits and asked her to stop editing her section and to work on her own text. Sarah's post was followed by the teacher's post, whereby she intervened and asked students to avoid annoying each other and to focus only on the task. This interaction showed individual ownership of the text; students refused each other's attempts to change or edit what they had written, demonstrating a high-low level student power relationship

Reem also demonstrated collaboration in commenting on another’s language use. The following interaction occurred between her and Aseel in which Aseel appears to be reluctant to engage with what Reem commented on. This is followed by Reem’s initiatives to collaborate with others.

Extract 11

Wiki interaction	By	Types of comments/edits
<u>Sarah said at 11:28 p.m. on Apr 2, 2014</u> Miss check our page and tell me what do you think of it??	S	Seeking teachers feedback
→ <u>Miss Susan said at 8:40 p.m. on Apr 3, 2014</u> It is really good I like the heading you did them as I told you but please change the purple too light!!!	T	Giving feedback + Giving task instructions
→ <u>Aseel said at 9:06 p.m. on Apr 3, 2014</u> yeah miss the colour is disgusting I dis like it	S	Acknowledging + Other talk
→ <u>Reem said at 12:45 p.m. on Apr 4, 2014</u> Dis like is a one word it should be dislike :)	S	Giving language related feedback
→ <u>Aseel said at 3:18 p.m. on Apr 4, 2014</u> I know but I am talking to the teacher do your own job	S	Refusing
<u>Reem said at 12:56 p.m. on Apr 24, 2014</u> (...) I feel lazy to edit the whole text can anyone help plz	S	Expressing emotions + Seeking peers help

Reem commented on Aseel’s use of ‘dislike’ as two separate words. Reem provided feedback to correct Aseel’s mistake. However, Aseel’s reaction was negative towards Reem’s comments and she behaved in a non-collaborative manner. That is, rather than engaging with what Reem posted, she claimed that she knew about Reem’s given information and explained that she was not talking to her and asked her to do her job rather than correcting her mistake.

In this last post, there were instances when students ignored what other students posted. Reem sought help from others to edit her text and therefore initiated collaboration from other group members. However, there was no response from other group members. The page history showed no editing behaviours by other group members on the text.

Throughout the activity, students were reluctant to engage in editing behaviours whether editing content or grammatical mistakes. Students appear to rely on the teacher and assigned the role of editor for her. Miss Susan was the one who was editing students’ text and she used the wiki comments to notifying students about her edits. The following extract presents some examples.

Extract 12

Wiki interaction	By	Types of comments/edits
<p>Miss Sasan wrote at 6:07 p.m. Mar 30, 2014 (...) related to Islamic culture because kuwait because it is an Islamic country. People follow islamic the Islamic rules (...). Kuwait and other middleeast countries has middle eastern countries have lots of common things such as language, religion and tradition traditions. (...) Greeting in Kuwait is different different, it starts with the (...) National address dress of Kuwaiti men and women : Most Kuwait Kuwaiti men wear a dishdasha opening to the waist. It is made of light materials in white or ivory are white or ivory colour which are typical in summer, The long side pockets suffiecient are sufficient for their wallet(...) Marriage in Kuwait: (...) of money is usually spends spend on it. (...). in In Kuwaiti culture, (...) after the marriage not rather than before the marriage. This is very much reflect reflects the Kuwaiti cultural tradition (...) The relationship should be bonded in Islamic boundary</p>	T	Correcting students' text
<p>Miss Susan said at 6:09 p.m. on Mar 30, 2014 Girls please check what I have edited through the page history it is really a good way of learning , learn from your own mistakes and if you have any questions do not hesitate to ask me</p>	T	Notifying students about edits + Giving task instructions
<p>Miss Susan wrote at 9:33 p.m. on Apr 7, 2014 It is essence essential that family prepare for this celebration</p>	T	Correcting students' text
<p>Miss Susan said at 9:37 p.m. on Apr 7, 2014 Aseel you have lots of mistakes check what I have changed , one thing that I observed we have discussed last week the difference between essence and essential don't confuse yourself , I think what you wanted to use is essential so pay attention to this</p>	T	Notifying students about edits + Giving language related feedback
<p>Miss Susan wrote at 12:45 p.m. on Apr 19, 2014 childrens Children get some money from around them. This money is called "Al Eidiah" and is given to the childrens children when they greet adults and elderer elderly people. As a way holy celebration, people gave childrens children money to make them feel happy during this celebration. Childrens Children feel happy (...). during During the first three days , most of Kuwaiti visiting visit their relatives and (...)</p>	T	Correcting students' text
<p>Miss Susan said at 12:46 p.m. on Apr 19, 2014 Please girls pay attention children is a plural and you don't have to add "s", the singular is child and the plural form is "children"</p>	T	Giving language related feedback

Miss Susan edited students' wiki text and asked them to ask her questions related to her editing behaviour. This was followed by a wiki post, which was directed at Aseel whereby she commented on her text and linked what had been discussed in the class with the wiki editing. Miss Susan edited the mistake for Aseel rather than encouraging her to do so. She also posted another comment which was directed at the whole group, drawing their attention to their mistakes that repeatedly occurred, such as using 's' with 'children'. Here Miss Susan seemed to help students in recognising their existing knowledge and to help them to see continuities in their learning. She used 'we' statements to link past experience (i.e., what was discussed in the classroom) with the present one (i.e., the wiki activity).

When interviewing Miss Susan, she declared that she believed that it is her responsibility as a language teacher to edit students' texts. She described a hierarchy

relationship between her and her students. That is, she sees herself as the most knowledgeable person who delivers information to students who are expected to learn from their mistakes by checking the page history. She appeared to claim that even in a wiki, there are predefined roles that teacher and students should adopt.

Yeah I feel that it is my job (...) the teacher's role should be really prominent because I am the teacher. There should be a balance between what the students do and the teacher has to do (...) I mean we are teaching English and we need to deliver knowledge correctly, okay so leaving the students to make lots of mistakes without correcting them is a big problem for them. In the wiki the teacher should correct these mistakes and students have to check the corrected form on the page history. (Miss Susan, stimulated recall interview).

Whilst intervening in students' online interaction, Miss Susan was not only claiming authority in correcting students' grammatical mistakes, but she appeared to be directive, telling students how to organise the wiki page by giving them a task instruction in relation to the format of the page (extract 13).

Extract 13

Wiki interaction	By	Types of comments/edits
<p>Miss Susan said at 5:41 p.m. on Apr 2, 2014 There is a picture of old men in traditional coffee houses someone should add some text under it is meaningless sitting there all alone!</p> <p>→ Aseel said at 6:38 p.m. on Apr 2, 2014 Miss I have already added</p>	T	Giving task instructions
	S	Acknowledging
<p>Aseel wrote at 6: 29 p.m. on Apr 2, 2014 <u>In the first day of Eid al fitr, people like to visit traditional coffee houses where they can eat and drink traditional food and drinks. The traditional coffee houses are especial places not only for old people but also for families gathering.</u></p>	S	Expanding on own existing ideas
<p>Miss Susan said at 4:52 p.m. on Apr 11, 2014 Girls, please try to have the same font and font size for the whole page (Except for the headers of course, it is okay if they're slightly larger than the text). It will make it looks neater. I would also suggest having all the paragraphs have the same color. But if you want to keep it colorful, have each paragraph in a different shade of a specific color. Like each paragraph could be dark blue, regular blue, light (but not too light) blue.</p> <p>→ Aseel said at 4:02 p.m. Apr 12, 2014 I did that teacher</p>	T	Giving task instructions
	S	Acknowledging

The previous extract represents Miss Susan's effort to help students organise their wiki page. The interaction is structured as teacher's initiation - students' response. In the first

sequence, she asked students to add more information about the inserted picture. Aseel responded and edited the text by expanding on her own ideas (extract 6). In the second sequence, she directed students to perform some format changes on the page, which was also responded to by Aseel who edited the page.

Miss Susan also intervened to notify inactive students; for example, Salma seemed to struggle to start her sub-section. The following extract occurred between Salma and Miss Susan.

Extract 14

Wiki interaction	By	Types of comments/edits
<p>Miss Susan said at 11:43 a.m. on Apr 9, 2014 All girls are participating except you Salma can you start organising your section at least plan how you are going to integrate your part in the wiki page?? it is your job you have to do it</p>	T	Promoting participation/ Giving task instructions
<p>Salma said at 12:54 p.m. on Apr 9, 2014 Teacher I am reading what other are writing but I feel that my mind is empty help plz ☹</p>	S	Seeking teacher help
<p>→ Miss Susan said at 1:51 p.m. on Apr 9, 2014 Since you should do the last part I think you need to summarise what others have written and then add more interesting points ... Google it</p>	T	Giving task instructions + Giving help
<p>Miss Susan said at 1:00 p.m. on Apr 21, 2014 Salma you are responsible for writing the conclusion I have not seen it yet please try to finalise the page.. I will check that latter on</p>	T	Promoting participation + Giving task instructions
<p>→ Salma said at 4:32 p.m. on Apr 21, 2014 I have written that teacher, check what I have wrote (sic) I hope you like it.. tell me about it</p>	S	Acknowledging + Seeking teacher feedback
<p>Salma wrote at 4:30 p.m. on Apr 21, 2014 <u>Our wiki page present some cultural behaviours and norms of Kuwaiti society starting from the nature of relationships, greeting and ending with the formal celebration in the county. Two formal celebrations were presented Eid ALfeter and AlAdha in which people enjoy family gathering and food (...) Finally, we have to say that every country its own cultural beleif and repsecting these norms is something important as any visitor (...)</u></p>	S	Synthesising another's existing ideas

Amongst her group members, Salma appeared to struggle to start writing her sub-section. One possible explanation for her behaviour could be the difficulty of summarising what others have written whilst they still have not finished writing their sub-sections. Miss Susan was active in monitoring students' behaviours as she told Salma to integrate her ideas with other's ideas and start writing her section. This notification was responded to by Salma, who explicitly asked for the teacher's help.

Miss Susan provided task instructions to Salma, guiding her to use 'Google' to find out more information and to try to engage with what others had written by summarising their ideas. At the text level, Salma did not make any effort to write her sub-section,¹⁶ which seemed to push Miss Susan to post another notification comment to her, asking her to start writing her section and drawing her attention to the fact that the work would be checked. This notification was followed by Salma's responses in the threaded and text modes. In the threaded mode, she acknowledged the teacher and sought feedback on her writing, whereas in the text mode, she exhibited collaborative behaviour when she engaged with what others had written by synthesising/summarising other's text.

Miss Susan was constantly notifying inactive students and explicitly mentioning their names in her posts (e.g., extracts 6 and 14). Interviewing her suggests that she used this strategy as a way of ensuring equality and fair distribution of work. She expressed her familiarity with some of her students' feelings (shyness), and believed that her notifications would push them to work on the activity.

I wanted them to do their job; it is unfair that some students work whilst others do not (...) In my post, by calling students by their names I really wanted them to write (...) If I did not mention their names they would be observing without writing. I know some of them are shy about writing, but telling them that I know and realize that they are not doing their jobs will push them to work. I know that they will consider my posts because I am their teacher after all (Miss Susan, stimulated recall interview).

There was some observed social interaction between students in the final stages of polishing the wiki page. Students posted comments for each other, thanking and expressing their feelings about working with others (extract 15).

¹⁶ Salma added a section to the introduction rather than working on her sub-section (see extract 8)

Extract 15

Wiki interaction	By	Types of comments/edits
<u>Sarah said at 3:43 p.m. on Apr 22, 2014</u> Thanks Aseel for editing the page colour and the font they are really nice good job dear	S	Thanking + Praising
<u>Salma said at 5:18 p.m. on Apr, 23, 2014</u> Thanks teacher and girls I really enjoyed working here	S	Thanking + Expressing emotions
<u>Reem said at 12:56 p.m. on Apr 24, 2014</u> Me too I feel so happy to finish our project...	S	Expressing emotions
<u>Reem said at 3:21 p.m. on Apr 25, 2014</u> Girls many thanks I really enjoyed working with you I feel so proud of the page	S	Thanking+ Expressing emotions
<u>Aseel said at 12:26 a.m. on Apr 27, 2014</u> Me too I did not expect that we are going to write such as long and beautiful poster many thanks my lovely friends looove u all ☺	S	Thanking + Praising + Expressing emotions

Sarah, Salma, Reem and Aseel, the four members of the group exchanged comments to express their emotions, praising their work and thanking the teacher and each other. They acknowledged their enjoyment when working with each other in the wiki and felt a sense of accomplishment. Although the level of social interaction online between students was limited to the last stage of the activity, interview data shows that students felt that their FTF social relationship developed as a result of working online in the wiki. For example, Salma felt that interacting in the wiki helped her to respect other's work and to develop her friendships with others.

Wiki has taught me how to work with others and respect them as group members, because we had to work together. Also, we became friends. Before working in the wiki our relationships were not really strong but after engaging and talking to each other online I felt we became close friends (Salma).

Likewise, Reem felt that working together in a wiki activity helped them to keep in touch with others beyond the school's boundaries. This made her feel happy and similar to Salma, she felt that her friendship with others developed as a result of interacting online.

I feel so happy that I got more friends and we became very close to each other. We helped each other to finish the work; we were working on the same activity in the wiki. We could even communicate and keep in touch at home and we learned together after school; I liked this (Reem).

Case two Miss Danah's class

Miss Danah background information

Miss Danah (pseudonym) started her career as an English language teacher ten years ago. As a teacher, she has been developing herself in teaching writing since she believes that teaching writing skills is a tedious task. She declared her attendance at in-service teachers' professional workshops that were related to writing, such as expression and writing structure, process and genre-based writing, teachers' written feedback, and students' motivation in writing. However, she reported rarely attending technology related training workshops. Because having an International Computer Driving Licence (ICDL) Certificate is obligatory for all teachers in Kuwait, Miss Danah attended these workshops and passed the examinations.

When it comes to the place of technology in her personal and professional life, Miss Danah expressed a neutral position. She declared, in her background interview, that some technologies add workload and complexity to her job as a teacher. Although she has seven years of computer experience, she acknowledged that she still has basic IT skills and frequently seeks assistance whilst using the computer. As a teacher, she stated that she uses Microsoft Office to prepare worksheets, lesson plans and student exams, and Excel to record students' marks. PowerPoint and iPad are used sometimes in her classrooms to assist her in presenting her lesson. In her personal life, Miss Danah stated that she uses social networks such as Twitter and Instagram to communicate, exchange photos with friends, colleagues and people all over the world. Her background interview indicated that she has never used other social networks such as blogs, Facebook or wikis. She is not familiar with wikis and her understanding does not extend beyond her knowledge of the most popular wiki, Wikipedia.

As a teacher, she expressed her neutral perspective towards using technology in her classroom, due to the time and curriculum load. Officially, she started using some technologies in her classroom recently in the first academic term of 2013. PowerPoint, CDs, iPad and overhead projector are used occasionally in her classroom. She uses these technologies to facilitate the presentation of her lesson. She appears to be convinced that technology cannot substitute a teacher's role. She also acknowledged that teachers themselves need extra effort and training to use technology successfully in their classrooms.

In relation to teaching writing, she declared that she does not use any particular technology, however she recommends her students to use Word and electronic dictionaries outside the classroom. She reported that pair and collaborative writing activities are regularly conducted in her classroom and expressed her positive attitudes towards them. She expressed her neutral perspective towards peer review processes and stated that it could be problematic since students may learn wrongly without the monitoring of the teacher.

The students

Fai, Amy, Mei and Mohrah (pseudonyms) were the members of the online wiki group. Based on the background questionnaire data, all the four students had different language and IT abilities. They all use computers and have more than 5 years experience (see table 11).

Table 11 Case 2 students' background information

Student	English language	ICT	Computer experience/ Daily usage	IT skills	Purpose	Time of interaction in English		Collaborative writing performance
						Teacher	Peers	
Fai	93%	92%	>5 years > 3 hours	Highly confident in: using computers, typing in Arabic, browsing the Internet Somewhat confident in: typing in English	Chatting /writing emails/blogging Facebook/Twitter learning English	51-70%	30-50%	Good
Amy	82%	87%	>5 yrs. 1 to 3 hours per day	Somewhat confident in: using computers, typing in Arabic and English Highly confident in: browsing the Internet	Blogging/Facebook Wikipedia/ learning English /YouTube	>30%	51-70%	Excellent
Mei	78%	81%	> 5 yrs. 1 to 3 hours per day	Highly confident in: using computers, typing in Arabic and English, browsing the Internet	Chatting /blogging Twitter /Wikipedia	< 30	< 30%	Good
Mohrah	73%	84%	> 5 yrs. 1to 3 hours per day	Highly confident in: Using computer, typing in Arabic, browsing the Internet Confident in: typing in English	Chatting /writing emails/ Forum Facebook/Twitter learning English	51-70%	<30%	Fair

Their daily average usage, however, varies with Fai having the highest daily rate (>3) compared with others who spend one to three hours per day. Chatting, writing emails, blogging, Facebook, Twitter, YouTube, using forums and learning English are the main purposes for using computers, mentioned by the students. Amy and Mei declared their familiarity with Wikipedia.

In relation to group work, students acknowledged that they work in groups from one to two times per week. Furthermore, their responses to the questionnaire indicated that all

of them have previously participated in collaborative writing activities. As shown in table 11, Fai and Mohrah reported that they interact more with the teacher, whilst Amy reported her frequent engagement with her peers. Mei appeared to be passive when interacting with her teacher and peers as she rated her level of interaction as less than 30% for both.

Students' responses to the background questionnaire suggested that they have mixed perspectives of writing collaboratively. Their responses suggest that some students have collaborative-oriented behaviours more than others. For example, Fai and Amy reported that they frequently interact with their peers. When writing collaboratively, they assessed themselves as having good and excellent performance respectively (see table 11). They both agreed that writing with others and peers' feedback are highly important for developing their writing skills. They also highly agreed to take on board their friends' comments and suggestions, to listen carefully to other's ideas, to respect other's suggestions and to ask others questions. Fai disagreed about taking a leadership role and dominating the interaction, whereas Amy was neutral towards this.

Mei's and Mohrah's questionnaire responses, on the other hand, suggested their inclination towards some non-collaborative behaviour. For example, Mei disagreed that writing with others is beneficial, whilst Mohrah was neutral. Mei expressed her preference for writing individually whereas Mohrah was neutral. They both reported neutral attitudes when it comes to the effectiveness of peers' comments, listening to other's ideas and exchanging their ideas with others when writing collaboratively. Mei agreed to take a leadership role whilst Mohrah disagreed about dominating the interaction. Mei was neutral about taking on board other's suggestions or respecting other's points of view, whereas Mohrah agreed that respecting other's points of view is highly important, but she indicated that she would not about incorporate other's suggestions into her text.

Initiating the wiki activity

Observing the online wiki interaction suggested that Miss Danah left organising the activity to the students. Her behaviour did not show any initiatives to organise students' work or to manage their writing activity. The only action that she performed at the beginning of the activity was posting the first comment in the wiki page of the embedded group, whereby she asked students to start working on their wiki activity (see

extract 16). The teacher here used the language to give instructions rather than guiding students on how to work online.

Extract 16

Wiki interaction	By	Types of comments/edits
<u>Miss Danah said at 11:45 p.m. on Mar 12, 2014</u> Girls here in this group you are going to write about food and restaurant, start doing your activity here	T	Giving task instructions

In her stimulated recall interview, Miss Danah reported that the online activity should be a student-centred activity, and therefore she opted to give students the floor to manage their work. She stated that the teacher should be present in the wiki context. She suggested that there is a relationship between a teacher’s positive perspective towards the activity and students’ motivation towards it. Because of this, she tried to show her students that she was present in the wiki. According to her, this would help to show them how much she cared about the activity.

Well I think it is a student-centred activity and I tried to give them the floor. I did not want to tell them do this and that because they should manage this by themselves. I just asked them at the beginning of the activity to participate, because I think a teacher should show her students that she cares about the online activity. If the teacher herself did not remind students to participate they might feel unmotivated because the teacher did not show she cared about the activity (Miss Danah, stimulated recall interview).

Indeed, some students declared that simply knowing that Miss Danah was in the online context was motivating for them, and hence validated what Miss Danah said. Fai, for example, felt that she was excited to work more and write better because Miss Danah would read her work and comment on it.

I think it was really interesting; as I told you when I saw her online, commenting on our work this made me feel more excited and motivated about this activity, since she is our teacher. Her presence encouraged me to work more and better, because I wanted her to read and comment on my work (...) She should be there because simply knowing that the teacher is there motivates us (Fai, interview data).

Amy was also another student who felt that the teacher’s presence motivated her not only towards performing better, but also towards engaging in the activity. She reported the teacher’s presence and appreciation as the main reasons behind her online participation.

Her presence in the wiki encouraged us to work because if the teacher appreciates what we are doing, we feel motivated to perform better and be active in the activity. I mean if the teacher was not there, why should we bother about participating in the online activity? (Amy, interview data).

During the wiki activity

As shown in extract 16, Miss Danha intervened in the students' activity by posting a comment to instructing them to work on their activity. A close look at the online interaction suggested that Miss Danah's comment elicited students' participation. For example, Fai and Amy, the most collaborative students, according to the background questionnaire data, started to write in the wiki page and posted comments on the group page (extract 17).

Extract 17

Wiki interaction	By	Types of comments/edits
<u>Miss Danah said at 11:45 p.m. on Mar 12, 2014</u> Girls here in this group you are going to write about food and restaurant, start doing your activity here	T	Giving task instructions
<u>Fai wrote at 6:37 p.m. on Mar 16, 2014</u> <u>food and restaurants in Kuwait</u> <u>Kuwait is a very beautiful country with lots of restaurants that offer very delicious food. When you visit Kuwait, you will find many international cuisines. In our wiki page, you will present these restaurants and the kind of food they offer.</u>	S	Adding new ideas
<u>Fai said at 6:40 p.m. on Mar 16, 2014</u> Hi girls I really struggle to choose among the restaurants, can we decide and agree on the names of restaurants?? Wait your ideas	S	Greeting + Seeking peers feedback + Organizing the work
<u>Fai said at 11:07 a.m. on Mar 17, 2014</u> Okay girls I thought about it , I suggest to write about the main international cuisines such as Kuwaiti food, fast food, Lebanese food and Chinese food , any ideas??	S	Suggesting + Organizing the work + Seeking peers feedback
→ <u>Amy wrote at 11:15 a.m. on Mar 18, 2014</u> food and restaurants in Kuwait Kuwait is a very beautiful country with lots of restaurants that offer very delicious food. When you visit Kuwait, you will find many international cuisines. In our wiki page, you will present these restaurants and the kind of food they offer. → <u>Kuwaiti food :</u> <u>Kuwaiti cuisine is very important part of the Kuwaiti culture. The main meal in Kuwait involves fish, meat and chicken.</u>	S	Expanding on another's existing ideas
<u>Amy wrote at 11:33 a.m. on March 18, 2014</u> (...) fish, meat and chicken. <u>On any Kuwaiti menu you'll find a collection of delicious dishes, each one uneaque in taste, flavour and arema. And chances are that many of irresistible servings will be prepared according to the most popular style of cooking, the 'tabeekh'. Its mouth-watering taste is simply irresistible, especially with a menu that typically includes rice</u>	S	Expanding on own existing ideas

Wiki interaction	By	Types of comments/edits
<u>with lentils, Kuwaiti chicken biryani, potatoes and rice kebbeh.</u>		
<u>Amy said at 11:35 a.m. on March 18, 2014</u> Teacher I added some sentences and I wrote an introduction for my part Kuwaiti food. Let me know your opinion about it	S	Acknowledging + Seeking teacher feedback
→ <u>Miss Danah said at 11:57 a.m. on March 18, 2014</u> yes it was good reading your part but try to revise it , they are some errors I will check that once you revise it	T	Giving feedback + Promoting editing behaviour + Giving task instructions

In extract 17, Fai and Amy were working on their wiki page. Fai started the interaction by adding a few sentences on the wiki page; her writing behaviour was followed by a comment whereby she sought assistance and feedback from her group members on what they were going to write on their wiki page. She attempted to engage in collaboration with others by seeking consensus on the outline of their collaborative text. However, other group members did not reciprocate her initiation in the threaded mode. It seems that due to the absence of other's feedback, she posted another comment whereby she articulated her suggested ideas for others and invited others to engage with what she had suggested. Although other students did not respond to Fai's suggestion by posting a reply comment, students' writing behaviours showed incorporation for her ideas. That is, based on Fai's suggestion, Amy started to write about Kuwaiti food and expanded on what Fai had written. Although Amy declared in her background questionnaire that she interacts more frequently with her peers, here she directed a 'seeking feedback' comment to the teacher rather than to her peers. Miss Danah was responsive; she posted feedback whereby she asked Amy to revise her section. Miss Danah drew Amy's attention to the errors in her text and seemed authoritative when she reminded Amy that the revision would be checked by her.

At the initial stages of the activity, only Amy and Fai contributed to the wiki page. Mei and Mohrah were passive, as they did not post a single contribution to the wiki page. This passive engagement aroused Miss Danah's anger and she posted a comment that was directed at them (extract 18).

Extract 18

Wiki interaction	By	Types of comments/edits
Miss Danah said at 10:51 p.m. on Mar 18, 2014 Mei and Mohrah you have not participated yet can you write or post at least one comment come in!! I am so angry about you girls	T	Promoting participation + Expressing emotions
→ Mei wrote at 1.21 p.m. on Mar 22, 2014 <u>labanese food:</u> <u>in Kuwait, there are many delicious labanese restaurants where you can enjoy the fresh baked labanese bread and salades. You can find a huge number of labanese restaurants in front of the Aranbic gulf street where you can enjoy the sea view and nice weather. The labanese food involves tabolah, grilled chicken , kebab(...)</u>	S	Adding new ideas
→ Mei said at 1.26 p.m. on Mar 22, 2014 hello teacher it is me Mei , I did my job	S	Greeting+ Acknowledging
→ Miss Danah said at 3:11 p.m. on Mar 22,2014 Excellent Mei I can see that you have done something keep working on your project	T	Encouraging
→ Mohrah wrote at 1:32 p.m. on Mar 25, 2014 <u>Also, there are many other labanese food that you can enjoy such as hummus and araise. You can go and reserve table for you and your family or friends or take your order as a take way and enjoy your meal at home.</u>	S	Expanding on another's existing ideas
→ Mohrah said at 1:40 p.m. on Mar 25, 2014 Hello my teacher I am really sorry , I added some ideas and don't know how do they look? Please read them and let me know. also i would like to search for pic to make the wiki page more attractive for reader , what do you think?	S	Greeting + Apologizing+ Seeking teacher feedback
→ Miss Danah said at 6:43 p.m. on Mar 25, 2014 That's good Mohrah keep adding and writing your part excellent and good job darling	T	Giving feedback + Encouraging

Miss Danah's feelings of anger and her intervention appeared to push Mei and Mohrah to participate in the activity. Both students wrote on the wiki page and replied to Miss Danah's post. Following Fai's suggested outline (extract 17), Mei started a new section about Lebanese food, which was then expanded by Mohrah. As a way of acknowledging the teacher, Mei posted a comment to the teacher, whereas Mohrah apologised for her late participation and then sought feedback on her writing from the teacher. Although in extract 17, Amy started to write about Kuwaiti food, in this extract, Mei did not collaborate with Amy in co-constructing that section; she opted to add a new parallel section under a different sub-title (i.e., Lebanese food) rather than elaborating on Amy's text. Mohrah, on the other hand, seemed to engage collaboratively by expanding on Mei's ideas; she expanded on what Mei had written. Miss Danah intervened and provided positive feedback and words of encouragement for both students.

Miss Danah's behaviour in the previous extracts suggests her concern about writing directly in the wiki. Noticeably, she did not encourage students to discuss or plan together how they were going to proceed in their activity. Evidently, she did not even encourage others to engage in or reply to Fai's collaborative initiatives in extract 17. Interviewing Miss Danah revealed that she did not see the online threaded mode as the most suitable place for planning and discussing the collaborative text. The asynchronous nature of interaction, the language barriers, and the need to accomplish the product (i.e., wiki text) were the main issues that she mentioned.

I think for them, planning together at this stage in this context can be quite difficult; students may feel that it is hard to explain themselves in English and I also feel from my experiences that if they plan in a delayed time mode this will be even worse, because this may delay the process and make students demotivated or you may find them planning and planning without really writing on their wiki page. The purpose is to try to push them towards writing and practice writing publically. Yeah, I do believe that they need to discuss things but this can be in other places ahm, this can be done in the classroom for example (Miss Danah, stimulated recall interview).

Although Miss Danah seemed passive when it came to encouraging planning together, she was active in ensuring that the wiki text was accurate. She edited Fai's and Amy's wiki texts that were added in extract 17. Although Miss Danah asked Amy to revise her text, the text mode analysis shows that Miss Danah was the one who edited the wiki text, as illustrated in the next extract.

Extract 19

Wiki interaction	By	Types of comments/edits
<p>Miss Danah wrote at 1:11 p.m. on Mar 22, 2014 foodFood and restaurants in Kuwait Kuwait is a very beautiful country with lots of restaurants that offer very delicious food. When you visit Kuwait, you will find many international cuisines. In our wiki page, you will presented these restaurants and the kind of food they offer. Kuwaiti food : (...) On any Kuwaiti menu you²ll you will find a collection of delicious-delicious dishes, each one uneaque-is <u>unique</u> in taste, flavour and arema. And chances-<u>aroma, chances</u> (...)</p>	T	Correcting students' texts
<p>Miss Danah wrote at 6:58 p.m. on Mar 25, 2014 Food and restaurants in Kuwait with lots of restaurants thatwhich offer very delicious food. our wiki page , you-we will presented-<u>present</u> these restaurants and the Kuwaiti food : Kuwaiti culture. The main meal-<u>meals</u> in Kuwait involves-<u>involve</u> fish, meat and chicken. Lebanese food: in front of the Arabic-<u>Arabic</u> gulf street where you the sea view and the nice weather</p>	T	Correcting students' texts
<p>Miss Danah wrote at 11:23 p.m. on Mar 30, 2014 There is a vast range of foodstuff-<u>food</u> that <u>are</u> available in Kuwait (...) influences-<u>influence</u> (...)</p>	T	Correcting students' text

Throughout the activity, Miss Danah intervened constantly to edit the grammatical mistakes in the students' wiki texts (as can be seen in the following extracts). Interviewing her illuminated some of her justification for dominating the editing behaviour, instead of encouraging students to do the editing themselves. She declared that producing an accurate wiki text is important. She expressed her uncertainty about students' willingness and abilities to edit their own and other's wiki texts. She also believed that it was her responsibility to ensure that learning occurs in the wiki. She saw the history records of edits as an opportunity to teach students about their grammatical mistakes.

I was trying to help them make their wiki text better and more accurate. They may feel hesitant about editing their own mistakes because they may feel embarrassed or unsure about their editing, I mean whether it is right or wrong. I think it is my role to guide students towards having an accurate text. They will check their edited mistakes and by doing so they will learn things correctly (Miss Danah, stimulated recall interview).

Miss Danah continued to direct students not only to produce an accurate text, but also to produce an organised, coherent and attractive wiki page. This is obvious from the following posts of task instructions.

Extract 20

Wiki interaction	By	Types of comments /edits
<p><u>Miss Danah said at 7:01 p.m. on Mar 25, 2014</u> Girls I read in the introduction that you are going to mention the kind of food and then names of the restaurant that offer these food, but when I read your wiki page there were no restaurants names , please revise this again , every one should revise her section and add on it , but in general it is really a good job keep working on it</p>	T	Giving task instructions + Giving feedback + Promote editing behaviour + Encouraging
<p><u>Miss Danah said at 6:57 p.m. on Mar 26, 2014</u> Good work girls, now write about the cultural behaviour and etiquette when eating in a restaurant in Kuwait, think what you are going to say about this interesting point ?</p>	T	Encouraging + Giving task instructions+ Eliciting ideas
<p><u>Miss Danah said at 2:06 p.m. on Apr 11, 2014</u> Group 3 insert more pictures on your page and please change the font of the page</p>	T	Giving task instructions
<p><u>Miss Danah said at 11:36 a.m. on Apr 21, 2014</u> Girls add some pictures, videos or even links to your wiki page.. it will be more attractive for any reader</p>	T	Giving task instructions

Extract 20 presents some examples of Miss Danah's instructions throughout the activity. She intervened to give task instructions in order to improve the wiki page. The first two posts relate to the content of the wiki text. Miss Danah reminded students to follow what was mentioned in their introduction, and at the same time instructed everyone to edit her section. She appeared to emphasise revising and adding to a student's existing text rather than encouraging students to engage with other's texts. Moreover, Miss Danah suggested some content ideas for students; she asked them to write about cultural behaviour and etiquette, a section that students had not previously planned to write about. The last two posts focused on the format of the wiki page. Miss Danah suggested formatting changes for the group's page, such as adding more pictures and adding links and videos to the wiki page to make it more attractive.

Three students responded to Miss Danah's instructions. Fai acted in the wiki page, whereas Mei and Mohrah offered assistance to Fai. Although Miss Danah instructed students to write about 'cultural behaviour and etiquette', students chose to work on their previously planned sections. Consider extracts 21 and 22 as illustrating examples for students' behaviours.

Extract 21

Wiki interaction	By	Types of comments/edits
→ <u>Fai wrote at 12:51 p.m. on Mar 27, 2014</u> (...) <u>Kuwaiti resturants names :</u> <u>Farej Swelah :</u> <u>bazza cafe :</u> <u>Heel wo Zafran :</u>	S	Adding new ideas
→ <u>Fai said at 12:53 p.m. on Mar 27, 2014</u> Teacher I added some names of Kuwaiti restaurant but I don't know what they offer exactly I will read then write about them	S	Acknowledging
<u>Miss Danah said at 7:03 p.m. on Mar 30, 2014</u> Some of you have not written anything yet, can you please do your homework	T	Promoting participation
→ <u>Mei wrote at 1:02 p.m. on Mar 31, 2014</u> <u>Farej Swelah :</u> in this restaurant, you will have a real <u>kuwaiti food, it is considered one of the most poplar resturant in kuwait and one of the first Kuwaiti restaurant. It locates in Salmiya very close to Salmiya shopping centre. You can order different meals such as baryani cheiken , makboos chicken and different types of home-made salad.</u>	S	Expanding on another's existing idea
→ <u>Mei said at 1:04 p.m. on Mar 31, 2014</u> Teacher I wrote about some restaurants just need your time to read it and let me know your comments	S	Acknowledging + Seeking teacher feedback
→ <u>Miss Danah said at 1:39 p.m. on Mar 31, 2014</u> I have seen your writing, good job darling!	T	Giving feedback+ Encouraging
→ <u>Mohrah wrote at 6:00 p.m. on Mar 31, 2014</u> <u>Bazza café: This cafe is not just a cafe!! , it likes traditional kuwaiti resturant that attract many people in kuwait becasue of his taste food. You can find this resturant in many different places in Kuwait such as Grand avenues shopping centre , Al-shamiya co-operative society or in Almahbolah restaurant hall. (...) You will never feel regret if you visit it . The prices is really good and you can enjoy the warmth welcome from the stuff there ! i REALY RECOMMEND YOU TO VISIT THIS BEAUTIFUL RESTAURANT.</u>	S	Expanding on another's existing idea
<u>Miss Danah said at 5:48 p.m. on Apr 5, 2014</u> Girls good job but can you check your mistakes from the page history	T	Encouraging+ Notifying students about edits
<u>Miss Danah wrote at 5:54 p.m. on Apr 5, 2014</u> it likes is the most traditional Kuwaiti-Kuwaiti resturant that attract attracts many people in Kuwait-Kuwait becasue because of his taste food-its food taste. You can find this avenues shopping centre , Al-shamiya Al-Shamiya co-operative society or in restaurant hall. This cafe serve kuwaiti serves Kuwaiti (...), it . The prices is-are really good and you the stuff there ! i REALY RECOMMEND YOU TO VISIT THIS BEAUTIFUL RESTAURANT	T	Correcting students' text + Deleting

Fai followed the teacher's instructions by adding the restaurants' names to the wiki page. She then posted a comment to inform the teacher about her additions, and explained that she was going to read more and complete what she had started. Similar to

extract 18, Miss Danah was active in notifying inactive students; she intervened to promote students' participation. Although Fai did not explicitly seek help from her group members, Mei collaborated and expanded more on what Fai had written. She seemed to implicitly offer help to Fai by expanding and writing the types of food that were served in the first restaurant. Then, she sought feedback on her writing from Miss Danah, who provided positive feedback. Not only Mei but also Mohrah participated after the teacher's comments, by collaboratively expanding on Fai's writing. Miss Danah encouraged students and edited Mohra's text. This suggests students' collaborative engagement in co-constructing their wiki text.

Although students' texts had some errors and mistakes, Miss Danah posted positive feedback rather than pointing out students' mistakes. At interview, she suggested that she avoided criticism and negative feedback to encourage students working online. In other words, she seemed to be concerned about students' feelings and participation throughout the activity.

I was really happy with their writing and participation. I did not want to let them down or embarrass them in front of others. I know that some students may feel embarrassed if they are criticized in front of others; that's why I was trying to be as nice as possible when commenting on their work. I did not want to impede their writing and participation on the wiki page (Miss Danah, stimulated recall interview).

At interview, some students suggested that Miss Danah's positive feedback had an impact on their online participation. They felt that her encouragement and positive feedback helped them to work harder. For example, Fai felt that the teacher's positive comments encouraged her to write more and to work better. Similarly, Amy highlighted an important issue, which was the appreciation of their work by the teacher. Amy and Mei declared that they tried to do their best to impress their teacher. Mei appeared to be competitive as she stated that she tried to perform better than her group members, to impress her teacher.

When we were working online she was encouraging us and this really made me motivated to work online. When the teacher posted, 'excellent Fai, you are doing a great job,' this pushed me to write more and do better (Fai).

To me it was a kind of motivation; her positive feedback helped me to work more. I mean, appreciating our work was essential and the teacher was there to do so. This helped me to focus on the task and to try to do my best to impress the teacher (Amy).

“The most important thing is her feedback. I mean because she was there, I was always trying to work more than my group members to impress her and to show her that I have good writing skills. I sometimes tried to be creative and to think about ideas that my friends had not written yet, just to show her than I am different from others. If the teacher had not been there, this feeling would not have been there, because I would not have felt that there was someone monitoring our work as a group (Mei).

Whilst progressing in the activity, there were some instances of seeking and giving feedback between collaborative and non-collaborative students. For example, Amy and Mohra wrote about Kuwaiti food and drinks on their wiki page; Mohrah then asked her group members to comment on her writing (see extract 22).

Extract 22

Wiki interaction	By	Types of comments/edits
<p><u>Amy wrote at 6:11 p.m. on Apr 5, 2014</u> Kuwaiti food : <u>Since Kuwaitis primarily desert, the number of foods they have available locally is severely limited. Due to this, the historic diet is almost wholly limited to animals, their byproducts, and a small number of fruits or vegetables (...)</u>Among the plant life the only true source of food is the date.</p>	S	Expanding on own existing ideas
<p><u>Mohrah wrote at 7:21 p.m. on Apr 5, 2014</u> Drinks <u>In Kuwait, You will find all the international favorites drinks , including coffee, tea, milk, soft drinks, and juices. Coffee, tea, and juices are the local favorites depending on the occasion and the season, but nearly any non-alcoholic drink is readily available in Kuwait.(...) The tap water is generally safe to drink in Kuwait, however as a tourist you need to confirm this with your hotel or guesthouse outside of Kuwait City. If you do drink the water, many people may have trouble adjusting to the local tap water, as it will most certainly be different from what your system is used to if you are not from the region.</u></p>	S	Adding new ideas
<p><u>Mohrah said at 7:30 p.m. on Apr 5, 2014</u> Can anyone check my writing girls? → <u>Fai said at 6:53 p.m. on Apr 7, 2014</u> it is really nice Mohrah but I think you have started writing about restaurants then move to drinks I think it will be better to write about food then drinks as Amy wrote</p>	S	Seeking peers feedback
	S	Giving feedback
<p><u>Miss Danah said at 10:19 a.m. on Apr10, 2014</u> Start writing about the cultural behaviour and etiquette as I suggested?? the deadline is approaching you need to hurry up</p>	T	Giving task instructions + Managing time

Despite the teacher’s instructions in extract 20, Amy and Mohrah carried on working on ‘Kuwaiti food’, the section that was suggested previously by Fai (extract 17). Although both students had been working on the same sub-section, rather than working

collaboratively, they worked in a parallel mode. That is, whilst Amy expanded on her existing text, which was the nature of Kuwaiti food (extract 17), Mohrah wrote new ideas about another new sub- section (i.e., drinks) rather than editing or expanding on Amy’s ideas. After posting her wiki text, Mohrah attempted to collaborate by posting a comment to seek feedback on her writing from her peers. Fai responded to Mohrah’s initiation and she posted positive feedback, referring back to Amy’s style of writing as a way of illustrating her point. However, no response was posted by Mohrah as a way of acknowledging or engaging with Fai’s feedback. Although students worked on what was suggested by Fai, Miss Danha intervened and seemed to impose her ideas on students’ text by giving them a task instruction. Here the teacher’s tone strengthened by using the imperative “start writing”; she appeared to push students to follow her pedagogical plan, which was not socially grounded or agreed to, by the students. She used an authoritative tone and asked students to write about ‘cultural behaviour and etiquette’, which was suggested by her previously (see extract 20).

After the interaction that occurred in extract 22, Amy responded to the teacher’s instructions and started adding the teacher’s ideas into the group wiki page (see the following extract). Miss Danah was positive about Amy’s additions and encouraged her to add more ideas. She drew students’ attentions to the wider audience who might be interested to read their wiki page (i.e., the authenticity of the activity).

Extract 23

Wiki interaction	By	Types of comments /edits
<p>Miss Danah said at 10:19 a.m. on Apr10, 2014 Start writing about the cultural behaviour and etiquette as I suggested?? the deadline is approaching you need to hurry up</p>	T	Giving task instructions + Managing time
<p>→ Amy wrote at 12:33 p.m. on Apr 10, 2014 <u>When eating in Kuwait there are a couple etiquette rules you must know and follow since Kuwait is a Muslim country(...) Some families in Kuwait eat in the floor while other eat on the table. A guest has to respect the cultural behaviour and if she/he invited to a Kuwaiti home where the meal is eaten on the floor, they have to remove their shoes and sit with others and eat.</u></p>	S	Adding new ideas
<p>→ Miss Danah said at 4:47 p.m. on Apr 10, 2014 Very good excellent keep working on it, it should have something interesting for the readers</p>	T	Encouraging

Whilst students were interacting online, Miss Danah tried to ensure equal participation between students by instructing them to join the activity (as illustrated previously in

extracts 18 and 21). In the following extract, she noticed that Amy was the only one who was responsive to her. She intervened in the following extract to promote other's participation and to encourage them to collaborate by giving help to Amy.

Extract 24

Wiki interaction	By	Types of comments /edits
Miss Danah said at 2:21 p.m. on Apr 11, 2014 Come in girls Amy is the only one who is working .. help her please .. work on your page	T	Promoting participation + Promoting giving help
→ Fai said at 12:53 p.m. on Apr 12, 2014 Miss I tried to add something on the page I will also write more about Lebanese restaurants in Kuwait	S	Acknowledging
→ Fai wrote at 1:01 p.m. on Apr 12, 2014 <u>(...) Most of Lebanese restaurant and food locate in Al-Salmiya area and inside shopping Malls such as Avenues. We have many options and you can select the most delicious restaurants among others. Here are a list of Lebanese restaurants in Kuwait (...)</u>	S	Expanding on another's existing ideas
Mei wrote at 7:28 p.m. on Apr 19, 2014 <u>(...) A restaurant is a business to serving the customers some delicious food and fresh drinks .There are various fast food restaurants in Kuwait. Most of them are delicious and have good tasting. You can also visit special restaurants which offer kuwaiti's traditional food and enjoy it (...)</u>	S	Expanding on another's existing ideas
Miss Danah wrote at 11:44 p.m. on Apr 22, 2014 <u>(...) A restaurant is a business place to serving the <u>where customers can have some delicious food and fresh drinks .There are various fast food restaurants in Kuwait. Most of them are delicious and have good tasting taste. You can also visit special restaurants, which offer kuwaiti's <u>Kuwaiti</u> traditional food and enjoy it (...)</u></u>	T	Correcting students' texts
Amy said at 11:16 a.m. on Apr 21, 2014 Girls I also will add some sentences in drinks section can anyone read it and tell me how it looks?? Need your feedback	S	Seeking peers feedback
→ Miss Danah at 12:29 p.m. on Apr 21, 2014 Very good Amy I liked it so much	T	Encouraging + Giving feedback
Amy wrote at 11:50 a.m. on Apr 21, 2014 <u>Also peolpe in Kuwait serves daites with coffee. Daites are sweet and are very healthy and includes lots of mineral. Arabic cofee is very strong and have a very tasty flavour. People avoid drinking lots of cofee at night because they dont want to be wake up the whole night. If you visit any tradition Kuwaiti resturatnt, you will be serve a coffee with daites.</u>	S	Expanding on another's existing ideas
Miss Danah wrote at 12:01 p.m. on Apr 21, 2014 People in Kuwait serve <u>serve</u> daites <u>dates</u> with coffee. Daites <u>Dates</u> are sweet and are very healthy and includes <u>include</u> lots of mineral. (...) If you visit any tradition <u>traditional</u> Kuwaiti resturatnt <u>restaurant</u> , you will be serve <u>served</u> a coffee with daites <u>dates</u> .	T	Correcting students' texts
Mohrah wrote at 7:47 p.m. on Apr 17, 2014 <u>(...)Also, if you are invited to have a meal with other Kuwaiti in Kuwaiti house, you have to arrive at the meal's time and arrive before the meal time to have a drink or coffee with others. You also have to greet elder people first then other young people by shaking each other's hands individually prior to your sitting(...)</u>	S	Expanding on another's existing ideas

Miss Danah's notification seemed to increase the level of students' contributions to the wiki page. For example, Fai collaboratively engaged with what had been written about Lebanese food; she elaborated and expanded on Mei's ideas (see extract 18). Then, she acknowledged Miss Danah and informed her that she would add more ideas on the same sub-topic. Furthermore, Mei expanded on Fai's introductory part of the page (see extract 17). In extract 17, Fai suggested writing about restaurants; in this extract, Mei went beyond and tried to define the restaurant first. Amy and Mohrah also collaborated by expanding on each other's existing ideas. That is, in extract 22, Mohrah started to write about 'drinks' and in this extract, Amy continued by expanding on Mohrah's previously written ideas. Amy then tried to initiate collaboration by asking her peers to engage with what she had added (i.e., seeking peers' feedback). However, her initiation was responded to by Miss Danah, rather than her group members. She provided positive feedback to Mohrah, and at the same time edited her wiki text. Similarly, Mohrah continued to work on the 'cultural behaviour and etiquette' text that was written by Amy (extract 23).

Miss Danah declared that it was necessary to monitor the dynamic of the group in the wiki context. As we have seen previously (extracts 18,21 and 24), she stated that notifying inactive students was important to ensuring equality in group-work. This was due to her belief that wiki activities require participation from all group members.

I think the teacher has to actively monitor who is working and who is not, because some students may feel that if the teacher is not monitoring the work, it is not necessary to join the group work, as long as there are other people who are doing the job (...) This is not the purpose of using a wiki. I think they all need to participate and write the wiki text (Miss Danah, stimulated recall interview).

Despite the fact that all group members contributed to the wiki page, they rarely edited each other's text grammatical mistakes. Miss Danah dominated the editing behaviours (as illustrated in the previous extracts), however when she instructed students to edit each other's texts, students were responsive. For instance, consider Amy's behaviour in the following extract.

Extract 25

Wiki interaction	By	Types of comments /edits
<p>Miss Danah said at 11:09 p.m. on Apr 13, 2014 Great job! Here are a few tips: 1- Make the words in the headings all start with a capital letter: "Drinks "and "Food behaviour and etiquette ", not all small letters. 2- Make all the text and pictures in the middle. The part about Cafe Baza is on the side. 3- 3-Fix the spelling of the words "restaurant" and then add more. You wrote you'd mention a number of restaurants, you wrote "1-" in front of Cafe Baza and that was it? Add more examples of restaurants. 4- Please remove " I will continue later bye girls ", that's just so silly The table on the page seems needs some editing it doesn't look nice, try to make it better. Work on these and I will check whether you have done your job!</p>	T	Encouraging + Giving task instructions + Giving Language related feedback
<p>Amy wrote at 12:19 a.m. on Apr 17, 2014 Kuwaiti restaurants <u>Kuwaitis restaurants?</u> names: Farej 1-Farej Swelah (...) Bazza 2-Bazza cafe (...) Drinks Drinks: In Kuwait, You you will find all the international favourites drinks, including coffee, tea, milk, soft drinks, and juices. Coffee, tea, and juices are the local favorites <u>favourites</u> depending on the occasion and the season, but nearly any non-alcoholic drink is readily available in Kuwait. (...) you are not from the region- etiquette<u>Etiquette:</u> I will continue later bye:)</p>	S	Correcting another's existing text + Deleting
<p>→ Amy said at 12:25 a.m. on Apr17, 2014 Miss check the page now all these have been done</p>	S	Acknowledging

Amy edited the page and then informed the teacher about her editing. Amy's exceptional collaborative initiative to edit the page was due to the teacher's instructions. As shown in the teacher's comment, Miss Danah asked students to edit some language mistakes, such as using capital letters for headers and editing the spelling of the word 'restaurants'. Furthermore, she asked them to edit the format of the page by instructing them to organise the text, pictures and tables on the page. Miss Danah's explicit instructions appeared to encourage Amy to engage critically with what others had written, and accordingly to detect and edit their language related mistakes.

Indeed, Amy's editing behaviour in extract 25 was the only instance of correcting other's existing text. It has been observed that students rarely edited each other's texts or talked to each other using the threaded discussion. At interview, students highlighted

some issues that were related to the way they behaved in the previous extracts. For example, Fai and Amy felt that editing another's text was not their job as long as the teacher was present in the wiki. They believed that due to their limited language knowledge, compared with the teacher's knowledge, their friends might refuse their editing. They both seemed sensitive and did not want to hurt other's feelings or embarrass others in front of the teacher.

I do not think that we will be able to manage correcting each other's mistakes, because I do not know, we may fight over or refuse each other's editing because we all are students and she is the teacher, so she has the right to correct our mistakes (...) I felt that the teacher was there so she should comment on our work rather than us, (...) although as I told you, I did not like some of my friends' ideas about my text but I did not tell them and I left the text as it was, because I did not want to look rude or to hurt her feelings in front of my teacher (Fai).

I felt that it was not an easy job, because my friends' texts had so many errors and I personally did not feel confident in editing their grammatical mistakes. And also, as long as the teacher was editing our mistakes, why should we edit these mistakes? I think she has better knowledge of language and she usually helps us in editing our wiki page. I think she was doing a great job in editing our mistakes constantly (...). I think everyone has her own idea and we need to respect this. I do not want to look impolite in front of my teacher and the others; that is why I avoided posting negative comments (Amy).

Mohrah mentioned that she faced difficulties in communicating with others using English. She did not seem confident in herself when it came to editing other's texts, especially when the text was written by those with better language abilities. She felt that it was the teacher's responsibility, since she was editing students' texts from the beginning of the activity.

I faced difficulty in expressing myself in English and sometimes I felt shy about asking questions online, because my language is not that good (...). I was waiting for the teacher's edits, because from the beginning she was editing our work and I felt that this was her job, not my job (...). I don't feel confident in editing grammatical mistakes. Fai and Mei are better than me and I didn't think that I would be better than them in editing their grammatical mistakes. I was afraid of editing the text in the wrong way; that's why I was always waiting the teacher's edits (Mohrah).

However, the teacher's notifications were responsible for Mohrah's participation in the wiki activity. She declared that although she was unsure of herself, she tried her best

because she did not want to disappoint the teacher, or to be lazy or inactive in front of her.

I felt worried about adding something that looked not as good as their writing (she is referring to other peers in her group); that is why I avoided writing. I just inserted a picture or changed the colour, but when the teacher posted a comment mentioning my name, I felt that she knew that I was doing nothing. This pushed me to do anything ahm, to write on the wiki page, because you know she is our teacher and I do not want her to think that I am lazy and my friends are better than me. Her comments encouraged me to write in the wiki (Mohrah).

The language barrier was not an issue for Mei, who was constantly seeking the teacher's feedback during the online activity. She trusted her teacher's feedback rather than her peers' feedback, and wanted to impress the teacher with her work and participation. She also mentioned that she still felt that the teacher had the authority in the wiki context, which was why she was responsive to her notifications.

I was posting more comments for the teacher because I was eager to know her opinion of my work, because she is the teacher and her feedback is the most important thing to me. I will not take my friends' feedback seriously because my friends may give me useless comments. I will consider my teacher's feedback, because what really matters to me, is my teacher's comments on my work (Mei).

I was busy for some days and did not add anything in the wiki, but because she mentioned my name, I added some sentences and told her that I had participated. She remains our teacher, even if we are working in the wiki, not in the class. That is why I felt worried, if she thought that I was not working as well as my friends (Mei).

Case three Miss Wesam's class

Miss Wesam background information

Miss Wesam (pseudonym) has been teaching in Kuwaiti schools for nineteen years. She has got a Masters degree in Teaching English to Speakers of Other Languages (TESOL) and currently works as an English language senior teacher in a government secondary school. She has attended several workshops, such as on the mismatch between teachers' beliefs and written feedback practices, process and genre writing approaches, teaching English with an iPad, and learner-centred classroom and technology.

Miss Wesam stated that the school where she is currently working in is very enthusiastic about embracing technology. She reported that this has motivated her to develop herself in using technologies, especially in her career as a teacher. In addition to having the ICDL Certificate, she uses other technologies, such as emails and the school's website to communicate with teachers and students outside the classroom. She reported the frequent use of Microsoft and Excel to prepare worksheets, exams, departmental notes and students' progress reports. Technology also plays a role in her social life; she declared that chatting, Twitter, YouTube and iPad are used by her to communicate socially with others. She is familiar with Wikipedia and defined it as, "an electronic encyclopaedia, which has been created by web users" (Miss Wesam, background interview).

She started to use technology in her classroom five years ago. She reported the use of various technologies such as PowerPoint and data show projectors, educational websites and cassettes. In relation to teaching writing, she stated that technology could assist her in teaching process writing by using the Internet at the pre-writing stage and Microsoft Office at the editing and revision stages.

She expressed her positive perspective towards peer review and collaborative writing activities. In terms of her teaching practice, she declared that she regularly uses these activities, along with pair writing activities. For her, collaborative activities are interesting since they involve active participation and unexpected ideas and answers. She declared that these activities are good since they help students to articulate their ideas in English, to take responsibility for their learning, and to learn from each other's mistakes.

The students

The wiki group consisted of four students who had mixed language abilities. Laila, Samar, Su and Eman (pseudonyms) were the members of the wiki group (see table 12).

Table 12 Case 3 students' background information

Student	English language	ICT	Computer experience/ Daily usage	IT skills	Purpose	Time of interaction in English		Collaborative writing performance
						Teacher	Peer	
Laila	93%	91%	8 years/ > 3 hours per day	Confident in: Using computers/typing in Arabic and English/browsing the Internet	Chatting /Facebook /Twitter /Wikipedia/ Learning English	> 70%	51-70%	Excellent
Samar	88%	86%	12 years/ > 3 hours per day	Highly confident in using computers/typing in English & Arabic, browsing the Internet	Chatting/ writing emails/ Blogging/ Facebook/ Wikipedia /learning English/ watching YouTube	30-50%	> 70%	Excellent
Sue	75%	81%	> 5 years 1 to 3 hours per day	Confident in using computers/typing in English/Arabic and browsing the internet	Chatting /Emails /Forums /Facebook/ learning English/ watching YouTube	51-70%	< 30%	Fair
Eman	72%	77%	> 5 years 1 to 3 hours per day	Highly confident in: Using computers, typing in Arabic/English, and browsing the Internet	Chatting /Twitter /Wikipedia/ learning English	>70	< 30%	Good

All of them had been using computers for more than 5 years. Their daily time usage however, varied between one and more than three hours per day. The purpose of using a computer varied from one student to another, but generally most of them used it for chatting, blogging, learning English, Facebook and Twitter.

In Miss Wesam's class, students declared that they usually engaged in group-work activities three to four times per week. However, when it came to the amount of interaction with their peers, their responses varied (see table 12). Some students engaged frequently with their peers (Laila and Samar), whilst others seemed reluctant to do so (Sue and Eman). Some of them expressed their positive perceptions towards collaborating with others whilst others were negative.

Based on the background questionnaire data, Laila and Samar, who assessed themselves as having excellent levels of performance in class collaborative-writing activities, reported that they had more collaborative behaviours than others. They both believed that writing with others is highly beneficial and preferred to write collaboratively over individually. Exchanging ideas with others, respecting other's opinions and ideas and

taking on board all peer feedback are the main collaborative behaviours they agreed to adopt. Whilst Laila did not report any drawbacks to the activity, Samar believed that disagreement and ideas that are distracting are the main drawbacks.

Sue and Eman assessed themselves as having a fair and good level of performance respectively. Compared with Laila and Samar, they reported non-collaborative behaviours. They both preferred writing individually over collaboratively, and disagree about the effectiveness of their peer feedback. Sue, for example, agreed to respect other's ideas but not necessarily to incorporate them into her text, whereas Eman expressed her neutrality towards taking on board other's feedback. Furthermore, Sue was neutral about listening to other's suggestions or exchanging ideas with others, whereas Eman disagreed to listen to other's suggestions and was neutral about exchanging her ideas with others. Whilst Sue reported some advantages of writing collaboratively such as developing writing skills, Eman believed that there are many disadvantages such as disagreements, noise, selfishness and difficulties in understanding each other's handwriting or ideas.

Initiating the wiki activity

Miss Wesam used the wiki front page to post comments from time to time for all groups (see extract 26). She adopted a friendly tone as demonstrated by her first posted thread. She greeted students, discussed the beauty of the weather of that day, and then moved to list a numbers of rules that she wanted students to follow whilst working together in the wiki context.

Extract 26

Wiki interaction	By	Types of comments/edits
<p><u>Miss Wesam said at 6:18 p.m. on Mar 7, 2014</u> Dear my lovely students, today the weather is extremely nice and I would like to remind you that here you are going to work together and I want every group to respect each other's ideas and suggestion. Also don't delete your friend's text unless you have a reason for that and unless you discussed it with your friends first. I am so happy to see that some group has started their works, however, don't be hurry to write your poster you have a plenty of time so think about the quality not the quantity. Please bear in mind we want to produce a coherent and accurate text</p>	T	Greeting + Social talk + Giving task instructions + Promoting group cohesion + Expressing emotions
<p><u>Miss Wesam said at 2:11 p.m. on Mar 15, 2014</u> It is really too early to start writing your poster so try to discuss first, discussion is really useful for you girls to organise your ideas and thoughts also to plan your text well</p>	T	Giving task instructions
<p><u>Miss Wesam said at 9:11 p.m. on Mar 18, 2014</u> I can see that there are some students in some groups adding junk of texts as if they wanted to finish the writing task. It cannot be done like this my lovely students, it is a group work you need first to discuss and read what others have written and also build on that don't just start over and over this will make the ideas in your wiki page unconnected which will result in incoherent text.</p>	T	Giving task instructions + Promoting group cohesion
<p><u>Miss Wesam said at 9:46 p.m. on Mar 18, 2014</u> I know that some groups are about to start writing their wiki page , I think here in the wiki you can delete and add easily but we need to remember that it is going to be a group work so please consider other's work when you delete or add on it. I want you to feel free to justify your own deletion but don't be rude when dealing with others treat them as nicely as you can .put yourself in their place and try to deal with their writing as if they are your own.</p>	T	Giving task instructions + Promoting group cohesion

Through posting these comments for students, Miss Wesam tried to create a socially and friendly online context (see interview extract below). She guided students towards certain behaviours using a friendly tone, by using 'my lovely students'. More specifically, she encouraged them to discuss their ideas with others, respect other's writing, to avoid deletions without discussion, and was concerned more about the quality not the quantity. Furthermore, she emphasised working as a group, and writing the wiki text by reading each other's ideas and building on them to produce a coherent text. She advised students to behave nicely with other's writing and to be courteous when reading and editing what others have written. Miss Wesam found the front page a useful place to post comments for the whole group. She elaborated on her behaviours in the following interview extract.

I was trying to show students that I am there ahm, or you know I wanted to be friendly in this informal online context. In the classroom I always do the same, you know if they start their activity, I remind them about what they have to do ahm, not what they have to do but you know ahm, how they behave with each other, I mean the expectations, because I did not want to remind them every time I logged in to the wiki. So I found the front page really useful, because whenever they login, they can see these instructions and you know this will help them to work better with each other (Miss Wesam, stimulated recall interview).

Students interview data suggests that students felt they needed some guidance from the teacher to know what is expected from them in the wiki context. They appreciated the front-page posts, since they guided them towards what they needed to do. For example, Samar understood that deleting other's words without discussion is unacceptable whereas Sue acknowledged that she appreciated reading and commenting on other's work in the wiki. Both declared that it is the teacher's responsibility to explain the acceptable and unacceptable behaviours rather than their peers.

At the beginning of the project the teacher told us what to do and what not to do. This was really helpful; from her post I understood what she wanted us to do, for example we should not delete each other's texts without discussing this with others. This was really helpful (Samar).

Without her (i.e., the teacher) we would not have been able to know what was acceptable and unacceptable in the wiki. I mean she posted comments to tell us to respect each other, to read each other's work and to post comments if possible. This was really useful for me because this encouraged me to do things that the teacher would like us to do. I cannot imagine one of my friends telling us how to work (Sue).

Some students such as Laila acknowledged that because the teacher guided them towards discussing their ideas with others, she tended to talk to her friends first before editing other's ideas.

If I felt that her ideas (she is referring to one of her group members) were not connected to the text. I would first tell her in the comment section in a way that helped her think again about what she had written; as the teacher told us, I would talk to her first (Laila).

During the wiki activity

Amongst other group members Laila, who had the highest language ability, started the activity by posting the first thread, which was directed at the teacher (extract 27). She expressed her positive feelings towards working in the online context, then sought task instructions from the teacher on whether they had to write, discuss or both. Rather than considering the activity as an individual endeavour, Laila asked what they had to do as a group by using the first person plural pronoun ‘we’. Her thread was followed by Miss Wesam’s post in which the teacher directed Laila towards discussing her ideas with other group members, whilst keeping in mind that it was a group rather than an individual activity.

Extract 27

Wiki interaction	By	Types of comments/edits
<u>Laila said at 12:35 a.m. on Mar 8, 2014</u> Hi teacher I am so happy to work online and talk to you here so exciting just wanted to ask you what shall we do next, discuss or planning writing first or it can be both of them right?	S	Greeting + Expressing emotions + Seeking task instructions from the teacher
→ <u>Miss Wesam said at 12:58 p.m. on Mar 9, 2014</u> Laila you have to discuss your ideas with your group first and then write , remember you are doing a group activity so work with others	T	Giving task instructions + Promoting group cohesion
→ <u>Laila said at 1:17 p.m. on Mar 9, 2014</u> Okay teacher many thanks for posting in our page	S	Acknowledging + Thanking

Laila then engaged with her group members and this was the initial attempt to talk to them via the wiki-threaded discussion. She greeted her group members and then talked to them about the structure of their wiki page. Extract 28 represents Laila’s comments and how her group members responded to her.

Extract 28

Wiki interaction	By	Types of comments/edits
<p><u>Laila said at 1:33 p.m. on Mar 9, 2014</u> hi my group I think our task is to write about Kuwaiti culture, I suggest writing first about three main parts and mentioning that in the introduction. I suggest to write about culture in relationships between men and women, culture ins social life (writing about wedding, man gathering for example) and culture in women life. I think it is gonna be interesting to share our ideas her and learn from others waiting you my nice group.</p>	S	Greeting + Organizing the work+ Suggesting + Expressing emotions + Seeking peers feedback
<p>→ <u>Samar said at 1:47 p.m. on Mar 9, 2014</u> Laila I think we also need to think about different behaviours and norms that all Kuwaiti people share and how these are different from other non-Arabic countries what do you think girls?</p>	S	Organizing the work + Elaborating + Seeking peers feedback
<p>→ <u>Sue said at 10:16 a.m. on Mar 10, 2014</u> I don't think that it will be important to write about the differences between Kuwaiti cultural norms and other non-Arabic countered I would agree with Laila I think she suggested interesting points</p>	S	Organizing the work+ Giving feedback + Agreeing
<p><u>Miss Wesam said at 11:51 a.m. on Mar 10, 2014</u> very good you are a good group excellent girls good planning carry on planning your wiki project</p>	T	Encouraging students + Giving task instructions

Before writing on their wiki page, students engaged collaboratively in a discussion over the creation of their text (i.e., planning). They engaged with each other; taking turns to post their opinions on Laila's proposed outline. Three students were active: Laila, Samar and Sue. Laila showed explicit effort in trying to share her ideas to construct common knowledge about the content of the collaborative text, by suggesting the structure of the wiki page and by expressing her feelings about working with others. She appeared to be willing to collaborate, since not only did she make her ideas visible for others, but she also invited others to elaborate and contribute to her suggested ideas. Behaving collaboratively as a group, Laila's suggestion was taken into consideration by her group members, who replied to her. Samar, for example, elaborated on what Laila suggested and sought feedback on her idea from others, by eliciting their ideas. In responding to these posts, Sue engaged critically with Samar's idea and expressed her opinion of it. She seemed to assess the relevance of the proposed ideas and explicitly agreed on Laila's idea rather than on Samar's idea. Miss Wesam was active in monitoring students' planning at the initial stage of the activity. She did not intervene to tell students what to write about, but rather she posted a comment to encourage them to carry on planning their activity. She encouraged students to work as a group and to carry

on planning together. This reflected her appreciation of working together. She further expressed this in her interview.

I wanted them to feel that they are part of the group, to join others and to feel that I prefer they work as a group rather than individually (Miss Wesam's, stimulated recall interview).

Noticeably, in extract 28, not all students joined in the planning discussion that was initiated by Laila. Eman, for example, did not post any comment in reply to Laila's proposed ideas. Miss Wesam was active in nominating students who were not joining the activity.

Extract 29

Wiki interaction	By	Types of comments/edits
<p><u>Miss Wesam said at 2:17 p.m. on Mar 15, 2014</u> Where are the rest of the girls, it is a group work I can see that Eman did not participate at all in the discussion , could you please join the discussion it is a group work not an individual work</p>	T	Promoting participation + Promoting group cohesion
<p>→ <u>Eman said at 11:19 a.m. on Mar 17, 2014</u> I agree with you Sue and Laila, we need to focus on Kuwaiti culture only rather than compare it to other, the task is asking us about Kuwaiti culture not comparing it with other non-Arabic culture</p>	S	Agreeing + Organizing the work + Giving feedback
<p>→ <u>Eman said at 11:24 a.m. on Mar 17, 2014</u> Miss I shared my planning idea with the rest</p>	S	Acknowledging

Miss Wesam notified Eman to participate; she posted a comment for her as a way of promoting her mutual participation in planning the text with her group members. This notification was considered by Eman, who replied after a while. She posted a comment in reply on Laila's proposed ideas in extract 28. Her comment reflected her mutual engagement with what others had discussed. Her reply suggested that she had read other's posts in extract 28, and accordingly expressed her agreement with Laila's and Sue's ideas. She justified her agreement by referring back to the focus of the activity, which asked students to write about Kuwaiti culture, rather than comparing it with other cultures. Following this, Eman posted another comment acknowledging the teacher's notification. Miss Wesam did not post any other follow up comments.

The teacher's notifications were considered by students as an effective way of helping them towards working online with others. This was mentioned in some of the students

interviews. Laila and Sue, for instance, felt that because of the teacher's notifications, some students participated.

Some of them were lazy, you know, they did not even care to work, but when the teacher mentioned their name they started working, writing anything or even inserting pictures (Laila).

One of the girls in my group did not work at all until the teacher told her to work (Sue).

Students managed to organise their wiki writing activity and seemed to engage with each other throughout the activity. Miss Wesam also intervened, and posted comments on students' work. Extract 30 below illustrates how students started writing their wiki page.

Extract 30

Wiki interaction	By	Types of comments/edits
<u>Sue said at 11.01 p.m. on Mar 17, 2014</u> Who wants to start I suggest you Laila start writing and we can then read and write more and discuss it	S	Organising the work + Initiating the writing activity
→ <u>Laila said at 9:38 p.m. on Mar 18, 2014</u> I am so happy that we are about to write our wiki page, girls just wanted to check the final outline for the topic will be as following: Kuwaiti culture: Men in Kuwaiti culture (talking about hospitality in Kuwaiti dewaniya and men's clothes), women in Kuwaiti culture (talk about marriage and Kuwaiti women clothes and social status and final paragraph discussing what is especial about the Kuwaiti culture. I am waiting your feedback to start writing the topic	S	Expressing emotions + Organising the work + Seeking peers feedback
<u>Miss Wesam said at 10:19 p.m. on Mar19, 2014</u> Why no one has replied to Laila's suggestion please reply girls and start writing your wiki page	T	Promoting giving feedback + giving task instructions
→ <u>Samar said at 7:11 a.m. on Mar 21, 2014</u> Go ahead Laila I will put the introduction and please help me in editing it if you see any problems	S	Giving feedback + Seeking peers help
<u>Samar wrote at 7:14 a.m. on Mar 21, 2014</u> <u>kuwait is an old country which was build with its own people's hand. Kuwait as a country has especial cultural believes and background. All people share similar cultural believes and behaviours since these behaviours root in the Kuwaiti society. in our wiki we present some of the main cultural norms which related to men and women and from this to the whole society. so welcome to our wiki and it is our pleasure to share with you our Kuwaiti culture</u>	S	Adding new ideas
→ <u>Laila said at 8:10 p.m. on Mar 21, 2014</u> The introduction is really good I really like the way you have started our wiki page I will start the first section which is about the culture in general and then men as we planned.	S	Giving feedback + Organising the work

<p><u>Laila wrote at 8:21 p.m. on Mar 21, 2014</u> <u>Culture of Kuwait:</u> <u>Kuwait has especial culture, it is a mix of Arabic, Islamic and western norms and believes. However, its Arabic Islamic heritage dominate people's life in Kuwait and the country remain conservative towards western tradition. The Arabic Islamic culture reflect in women and men relationships and clothes.</u></p>	S	Adding new ideas
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Students started writing their wiki page and at the same time had an on-going discussion about how to organise their work. The interaction could be characterised as student-centred, which started with Sue's initiation whereby she asked Laila to start writing the activity. Although Sue has the lowest language ability compared with others, here she appeared to take the leadership role and assigned the writer role to Laila, who has the highest language ability in the group. Laila collaboratively replied to Sue's suggestion and expressed her willingness to start writing the text. Furthermore, she posted the final outline of the wiki page based on the collective discussion that occurred previously (extracts 28 and 29). She then sought their feedback on the structure of their wiki. She also expressed her willingness to wait for other's feedback on what she had suggested. The interaction process showed a lack of response from other group members. This lack of response was followed by Miss Wesam's post in which she brought the students' attention to Laila's suggestion, and encouraged S-S collaboration in planning their text. Samar responded and engaged with what Laila had suggested, and based on the collective planning, she inserted the introduction of their wiki page and then sought help from Laila in editing her mistakes. Although there were some grammatical mistakes in Samar's writing, Laila provided positive feedback and informed her group members that she was going to start the first section of the wiki. As shown in the previous extracts, students were collaborating, having on going discussions about the creation of their text. In addition, they took turns adding their ideas into the wiki page.

One thing that was observed is that whilst students were progressing in the activity, they edited, discussed and co-constructed the wiki text together. Miss Wesam played a prominent role in regulating the students' interactions by modelling editing behaviours and promoting S-S collaboration. The following extracts along with interview data illuminate these observations.

In the initial stages of writing, students were reluctant to edit their own or other's texts. Miss Wesam corrected these mistakes and at the same time notified them about her edits, by posting a comment in the threaded discussion of the wiki page (see extract 31).

Extract 31

Wiki interaction	By	Types of comments/edits
<p>Miss Wesam wrote at 7:21 a.m. on Mar 25, 2014 Kuwait was build <u>built</u> with by it's own people's hand <u>hands</u> (..) since these believes are root <u>rooted</u> in the Kuwaiti society. in <u>In</u> our wiki page <u>page</u>, we present <u>are going to present</u> some of the cultural norms which are relate <u>related</u> to men and women</p>	T	Correcting students' texts
<p>Miss Wesma said at 7:22 a.m. on Mar 25, 2014 Girls please check the editing page some editing have been made by me try to learn from what I have edited there are some grammar rules that we have just taken in the class such as passive voice</p>	T	Notifying students about edits
<p>Miss Wesam wrote at 2:36 p.m. on Mar 26, 2014 The Arabic Islamic culture reflects <u>is reflected</u> (...)</p>	T	Correcting students' texts
<p>Miss Wesam said at 2:37 p.m. on Mar 26, 2014 Girls you are repeating the same passive voice mistake check the page history I will leave the editing for you next time</p>	T	Notifying students about edits + Promoting editing behaviour
<p>→ Samar said at 4:21p.m. on Mar 26, 2014 Thanks teacher for pointing out this it is really helpful I struggle to use passive voice in sentences but now it seems very clear to be because when you correct "reflects" to "is reflected" the example was so clear</p>	S	Thanking + Acknowledging

There were some grammatical mistakes in Samar's and Laila's texts (extract 30). Students did not correct each other's mistakes, but rather added to each other's ideas. In this extract, Miss Wesam edited students' mistakes and reminded them about what they had learnt in class (e.g., the passive voice). She used the 'we' statement to make the link between previous materials taught in the classroom, and the present wiki activity. Since students were repeating the same passive voice mistake, she drew their attention to her editing and informed them that she would leave the act of editing to them next time (i.e., modelling). Her acts of editing and posts were followed by Samar's appreciation and acknowledgement of her understanding of the passive voice.

Miss Wesam's behaviour in extract 31 suggests that she was modelling editing behaviours and encouraging students to engage in editing the wiki page. The interview with her confirmed this online observation. She believed that due to the novelty of the wiki in her classroom, students needed the teacher's guidance to engage in editing behaviour. She thought that this could be done through modelling the editing behaviours and showing the teacher's acceptance of it.

You know a wiki is something new to them, so you have to expect the least thing from them. I mean it was nice seeing them discussing and replying, but in order to push them further to edit and act on each

other's texts, they need guidance and they have to accept the fact that the teacher herself is encouraging such behaviour (...). At the beginning I realized that many students, even the high level students, were reluctant to edit each other's or even their own mistakes. They do not want to make a mistake in front of me or their friends; that's why my editing was necessary (Miss Wesam, stimulated recall interview).

When the teacher notified the students to pay attention to the form and to edit the text when they made grammatical mistakes, students' online behaviour suggested their engagement in editing each other's texts. Extracts 32 and 33 involve students' initiatives not only in commenting on each other's texts, but also in editing their peers' grammatical mistakes. As shown in extract 30, Laila started to write about the first section in the wiki page. In the following extract her group members engaged with her text, and questioned the accuracy of her text.

Extract 32

Wiki interaction	By	Types of comments/edits
<p><u>Laila wrote at 8:21 p.m. on Mar 21, 2014</u> <u>Culture of Kuwait:</u> Kuwait has especial culture, it is a mix of Arabic, Islamic and western norms and believes. However, its Arabic Islamic heritage dominate people's life in Kuwait and the country remain conservative towards western tradition. The Arabic Islamic culture reflect in women and men relationships and clothes.</p>	S	Adding new ideas
<p><u>Laila said at 8:23 p.m. on Mar 25, 2014</u> Girls waiting your feedback on my writing. ...</p>	S	Seeking peers feedback
<p>→ <u>Sue said at 1:40 p.m. on Mar 26, 2014</u> Laila I checked your writing, I edited some of the mistakes I think we need to use mixture not mix because mix is verb and we need to use as noun which is mixture is that right teacher?</p>	S	Giving language related feedback+ Seeking teacher language related feedback
<p><u>Sue wrote at 1:36 p.m. on Mar 26, 2014</u> It is a mix mixture of Arabic, Islamic and western norms and belives believes. However, Its Arabic Islamic (...) the country remain remains conservative towards western tradition.</p>	S	Correcting another's existing texts
<p><u>Miss Wesam said at 2:23 p.m. on Mar 26, 2014</u> girls Sue is asking about something really interesting can you join the discussion?</p>	T	Promoting language related feedback giving + Promoting participation
<p>→ <u>Samar said at 4:19 p.m. on Mar 26, 2014</u> oh Sue it is my first time to notice the difference but why mixture ?? is using mix wrong here , I mean we can say a mix of and in this case here it is going to be correct as well don't you think the same guys ??</p>	S	Acknowledging + Seeking peers language related feedback + Elaborating
<p>→ <u>Eman said at 8:38 p.m. on Mar 26, 2014</u> I think mix is wrong and mixture seems appropriate although I am not sure what is the difference between both of them</p>	S	Giving language related feedback
<p>→ <u>Miss Wesam said at 4:51 p.m. on Mar 27, 2014</u> _Laila what do you think? can you tell your friends the difference between the two words if there is a difference</p>	T	Promoting language related feedback giving
<p>→ <u>Laila said at 1:44 p.m. on Mar 28, 2014</u> I don't see any difference teacher and I think we can use both of them, I am not totally sure though.</p>	S	Giving language related feedback
<p>→ <u>Miss Wesam said at 1:53 p.m. on Mar29,2 014</u> I would say they are completely interchangeable in this case. When used as a noun mix is a synonym of mixture</p>	T	Giving language related feedback

In the previous example, students' interaction focused on the appropriateness of using the vocabulary item "mixture" over "mix" in Laila's text. The online interaction was student-centred, in which various collaborative behaviours were exhibited. Sue collaboratively reciprocated Laila's initiation and provided language related feedback in the form of a comment in reply, and editing behaviour. That is, she corrected Laila's in-text grammatical mistakes and at the same time provided a commentary to highlight the differences between mix and mixture. Sue referred back to the teacher to confirm her comment. Instead of providing the required feedback, Miss Wesam asked students to engage with each other to discuss Sue's comment. In other words, she redirected the question to the group members rather than simply providing a 'yes' or 'no' answer. The teacher's post was followed by students' posts, in which they took turns to share their language related feedback on Laila's writing. Samar and Eman posted their answers in a different way. That is, Samar critically questioned Sue's feedback, whereas Eman accepted Sue's contribution and confirmed her answer. However, students seemed unsure about their contributions, and this is evident from Sue's seeking the teacher's reassurance, Samar's seeking other peers' feedback, and Eman explicitly expressing her uncertainty by saying, "I am no sure". Rather than providing the answer for the students, Miss Wesam intervened again and showed her curiosity about language use, by asking Laila to explain the difference to her group members. Although Laila provided the answer to what students were discussing, she also seemed uncertain about her contribution. Her uncertainty was followed by Miss Wesam's language related feedback that confirmed Laila's contribution. The final text showed Laila's acceptance of Sue's editing behaviours, since she did not return her original writing using the wiki revert functionality.

In order to co-construct the wiki text, students followed what Laila suggested in extract 30. For example, Samar, Laila and Sue co-constructed the section on, "Men in the Kuwaiti culture" (extract 33). Following this, they all worked collaboratively to co-construct another section on the same page, "Marriage in the Kuwaiti society" (extract 34).

Extract 33

Wiki interaction	By	Types of comments /edits
<p><u>Samar wrote at 1:39 p.m. on Mar 26, 2014</u> <u>Men's in the Kuwaiti culture:</u> <u>The first prominent tradition in Kuwait is the men gathering in a place called 'Dawaniya'. In Dawaniya , men gather and discuss different social and political issues and they spend their free time together. Dawaniya is a room or a big hall in every house where men can drink coffee and tea while discussing their issues (see picture). People know each other's through gathering in Aldawania.</u></p>	S	Adding new ideas
<p><u>Samar said at 1:51 p.m. on Mar 26, 2014</u> Girls I wrote about Kuwaiti men culture (Dawaniya) as planned check it and let me know your view</p>	S	Seeking peers feedback
<p>→ <u>Laila said at 4:20 p.m. on Mar 26, 2014</u> Hi Samar it was really good writing about Dawaniya your ideas inspired me and helped me to expand on your ideas I liked the fact that you mentioned the social and political issues we can think about this and add what exactly we mean by this maybe we can add this in the next paragraph</p>	S	Greeting + Giving feedback+ Elaborating
<p><u>Laila wrote at 4:27 p.m. on Mar 26, 2014</u> <u>Indeed, Most of men gather in the afternoon when they finish their working hours at the morning. The main traditional clothes when visiting Dawaniya is wearing 'deshdasha' a white men dress with 'kitra' and 'Iqal'. Men always wears this clothes as a way of showing respect to their culture and traditions.</u></p>	S	Expanding on another's existing ideas
<p><u>Laila said at 4:29 p.m. on Mar 26, 2014</u> Girls check what I have just added plz feel free to edit share with me your comments I am happy to receive them ☺ love u all xxx</p>	S	Seeking peers feedback + Expressing emotions
<p>→ <u>Sue said at 8:54 p.m. on Mar 26, 2014</u> I edited that Laila it was really good I liked the way you both wrote started from general to specific and your ideas about 'Dawaniya' are really interesting I added few sentence ☺</p>	S	Giving feedback
<p><u>Sue wrote at 8:51 p.m. on Mar 26, 2014</u> Most of the men gather are gathering in the afternoon when they finish finished their working hours at the morning. The main traditional clothes when visiting Dawaniya is are wearing 'deshdasha' a white men dress with 'kitra' (...). <u>In most of formal events, men gathers and spends hours with their relatives and friends. Formal events such as Eids and Ramadan are the main cultural events and in which Dawaniya becomes full of men</u></p>	S	Correcting another's existing text + Expanding on another's existing ideas
<p>→ <u>Samar said at 9:03 p.m. on Mar 26, 2014</u> Oh really thanks for your comments and edits I checked it they were really on their place ☺</p>	S	Acknowledging + Thanking

Samar, Laila and Sue co-constructed the wiki text together, whilst having an on-going discussion about their added text. Students exhibited various behaviours that can be

classified as collaborative behaviours, such as building on each other's contributions, by expanding on each other's existing ideas, editing each other's grammatical errors, and the reciprocal interaction in the form of seeking and giving feedback. The interaction started with Samar's post, whereby she informed her group members about her addition. She followed Laila's outline in extract 28 and 30 by writing about AlDawanyia as part of Kuwaiti Men's culture (i.e., a place for men's gathering in Kuwait). Based on the group's collective planning, her editing behaviour was represented in the form of adding new ideas to the wiki page, and then she initiated a turn to seek feedback from others. Laila responded to Samar and not only provided feedback, but also elaborated on her idea and suggested expanding the paragraph, talking about the social and political issues.

Although no one appeared to respond to Laila's suggestion, the group members engaged in editing each other's texts. For example, when Laila expanded on Samar's ideas, she posted a comment asking other's to check what she had written, and at the same time expressed her willingness to accept other's editing and comments. Sue considered this and provided positive feedback on Samar and Laila's writings. Her editing behaviours not only focused on editing the grammatical mistakes, but she also expanded on her friends' ideas. This behaviour was appreciated by Samar who thanked Sue and confirmed the correctness of her editing. In the following extract, they were all also co-constructing another section.

Extract 34

Wiki interaction	By	Types of comments/edits
<p>Sue wrote at 3:16 p.m. on Apr 4, 2014 <u>Marriage in the Kuwaiti society:</u> <u>traditionally in Kuwait, men and women linked together in a formal and Islamic relationship which is the marriage. Like other Arabic and Islamic society, it is unacceptable in kuwait to engage in love relationship with a women without marriage. Marriage in Kuwait in the past , was very simple and the groom's family go to the bride's house to ask her father her hand (engagement) . The groom's family also prepare the dowry for the Bride as agreed with her father. The groom is responsible to find a suitable house for his bride and he has to well prepare it for her.</u></p>	S	Adding new ideas
<p>Sue said at 3:18 p.m. on Apr 4, 2014 Hello my lovely group :) As planned I did write about Kuwait marriage as a tradition thing in Kuwait but need your help to add on it plz feel free to edit</p>	S	Greeting + Seeking peers help
<p>Laila wrote at 1:36 p.m. on Apr 5, 2014 <u>When the bride's family took the dowry, they prepare the bride for the husband. The bride puts "Henna" in her hands and hair and buy new clothes and gold. She keep preparing before the wedding party. Also, all her friends and families gather in the night before the wedding to congratulate the bride and do the 'Yalwa'. The Yalwa means a celebration for the bride in her family house which involves putting Henna in the bride's hands and sign songs for the bride, the Yalwa performs by a number of woman and girls (...)</u></p>	S	Expanding on another's existing ideas
<p>→ Samar said at 6:36 p.m. on Apr 5, 2014 hello Sue miss you so much during this weekend :) I check your writing I edited some of your mistakes I think miss has mentioned the use of passive voice You wrote the wrong thing again when you say " the Yalwa performs by woman and girls" I think here we also using the passive so it is The Yalwa is performed by ..." Also I don't think it makes sense to say women and girls we can just say women. I also notice that you write woman is singular and women is plural</p>	S	Greeting + Expressing emotions + Giving language related feedback
<p>→ Samar wrote at 6:35 p.m. on Apr 5, 2014 When the bride's family took <u>takes</u> the dowry, (...) she keep <u>keeps</u> preparing before the wedding (..) in her family <u>family's</u> house which involves putting henna . The Yalwa performs <u>is performed</u> by a number of woman and girls <u>Women</u> in the bride's house.</p>	S	Correcting another's existing text
<p>Sue said at 10:58 p.m. on Apr 5, 2014 thanks so much Samar I checked your editing it makes our writing better thanks my friend</p>	S	Thanking+ Acknowledging

Sue, Laila and Samar were interacting in the previous extract. They engaged in collaborative behaviours, such as writing according to what had been agreed previously with other group members, expanding on each other's ideas, and seeking feedback on writing from other group members. The collaborative interaction was started by Sue, who informed her group members that she followed the outline planned, and wrote about marriage. She then sought feedback on her writing and permitted others to edit her

text. In the wiki page, Laila elaborated on Sue's text and expanded on her ideas. Furthermore, Samar responded to Sue's initiation and engaged critically with what had been added on the page. Samar's post included some grammatical explanation of Laila's language errors. She offered language related feedback on the passive voice and the plural form of woman. Samar seemed to comprehend how the passive voice is used in writing. In extract 31, she claimed that she understood how it was used in the sentence, in this example; there is evidence that she was now able to detect passive voice errors and correct them in the right manner. Clearly, the extract included some social talk between students, whereby they expressed a sense of belonging to the group. For example, in the comments Sue and Samar greeted each other and Samar expressed her feeling that she missed Sue.

Laila further expanded on the wiki text presented in the previous extract. Miss Wesam intervened to help students engage with each other's language use. In the following extract, she drew students' attention to Laila's addition, and explicitly encouraged them to engage in collaborative dialogue (i.e., a type of languaging).

Extract 35

Wiki interaction	By	Types of comments /edits
<p><u>Laila wrote at 10:16 p.m. on Apr 20, 2014</u> <u>Indeed, the Kuwaiti wedding party has special features and people like attend wedding, because they can spend very interesting times and meet all their friends and families. Kuwaiti wedding is not like other cultures, men and women are segregate and dont meet in wedding, but rather, men have seperated hall and women have other hall and only the groom and his families (father, brother, uncles) can enter the women wedding hall to take his bride.</u></p>	S	Expanding on own existing ideas
<p><u>Miss Wesam said at 12:45 a.m. on Apr 21, 2014</u> Girls Laila has added lots of sentences can anyone read it and edit her writing I noted some grammatical mistakes it would be nice to discuss these mistakes.</p>	T	Promoting giving language related feedback + Promoting editing behaviours
<p>→ <u>Samar said at 11:28 a.m. on Apr 21, 2014</u> I have checked that teacher I think when writing two verbs we have to add “ing” so rather than writing like attend we have to write like attending or like to attend. also I am not sure how accurate is this sentence “men and women are segregate”... honestly I don’t understand this point but generally the information is really good</p>	S	Giving language related feedback + Giving feedback
<p>→ <u>Eman said at 12:17 p.m. on Apr21, 2014</u> I think “like attending is more accurate but I also did not understand the “segregate” but I checked that in the dictionary it means <u>مذ فصل</u> do you think we can use other vocabulary?</p>	S	Giving language related feedback + Seeking peers language related feedback
<p>→ <u>Laila said at 1:04 p.m. on Apr 21, 2014</u> I remember that we have already taken the word “segregate” last year, I think it is commonly used.. segregated=separated I don’t think we need to change it ☺</p>	S	Giving language related feedback
<p>→ <u>Sue said at 2:57 p.m. on Apr21, 2014</u> yeah I also know its meaning we don’t have to change it but if we write “men and women are segregated” this will be more accurate what do you think girls?</p>	S	Acknowledging + Giving language related feedback + Seeking language related feedback
<p>→ <u>Samar said at 4:17 p.m. on Apr 21, 2014</u> yes I think that is grammatically more correct . anyway I edited that</p>	S	Giving language related feedback
<p><u>Samar wrote at 4:15 p.m. on Apr 21, 2014</u> like attendattending wedding, because they can all their friends and families-relatives. Kuwaiti wedding is not men and women are segregatesegregated</p>	S	Correcting another’s existing text

Various behaviours that can be classified as collaborative behaviours are presented in extract 35. Miss Wesam’s intervention was followed by students’ interaction, whereby students engaged in a *collaborative dialogue*. They engaged critically not only with what had been written by Laila in the wiki page, but also with each other’s contributions in the wiki threaded mode. Samar provided positive feedback on the content; however, she commented on some errors in form, such as the use of ‘gerund’ and ‘passive voice’. Eman agreed on what Samar suggested by confirming the correctness of ‘like attending’

over 'like attend'. Further, she collaborated with others by sharing the meaning of the word 'segregate' in Arabic, as if she was offering language related help to Samar who had explicitly expressed her uncertainty about the meaning of the sentence. Samar used their first shared language (i.e., Arabic) as semiotic mediation to explain the meaning and to help her group members. Having mentioned the meaning of the vocabulary, Eman then sought feedback from others on whether or not they could use the word in their text. Laila responded to Eman and her post illustrated that the students had significant past experience and shared knowledge. Her use of 'we' and her explanation that they had already learnt the word previously, seems to exhibit her collaborative endeavour to remind her peers about their past shared knowledge. She shared a synonym of the word 'segregated' in order to help her friends comprehend the meaning of the word. Sue acknowledged Laila's contribution and elaborated on it by providing the correct form of the sentence; she then initiated collaboration with others by seeking feedback on the correctness of her suggestion. Samar reciprocated Sue's initiation by providing feedback at the two levels. That is, she confirmed Sue's language related feedback and edited the text based on the group collaborative dialogue.

On occasion, Miss Wesam intervened to question other's texts. She positioned herself as a co-learner in the wiki activity to stimulate students' collaborative dialogue. Consider the extracts 36 and 37 as examples.

Extract 36

Wiki interaction	By	Types of comments/edits
Samar wrote at 5:27 p.m. on Mar 30, 2014 (...)Kuwaitis have always been free to manage their affairs among themselves (...)and develop their unique cultural characteristics in their own way (...).	S	Expanding on another's existing ideas
Miss Wesam said at 11:38 p.m. on Apr1, 2014 Group 2 I noticed that Samar has written the following sentence in paragraph 4 "Kuwaiti have always been free to manage their affairs among themselves" do you think using the word affair fit the sentence and the meaning here, what do you think of using other sentence think together about an alternative word that can suit the sentence and the meaning	T	Promoting giving language related feedback
→ Laila said at 12:39 a.m. on Apr 2, 2014 I think what Samar has written is not wrong but the word cannot be used in this sentence to refer to what we are trying to say I have no idea about alternative but relation or affinity can be used what do you think girls??	S	Giving language related feedback + Seeking language related feedback
→ Sue said at 4:47 p.m. on Apr 2, 2014 Affinity I don't know what does this word means exactly I have not used that in a sentence before but I checked that in the dictionary it means like a sort of close relationships. I think rather than saying relation or affair we can say relationship or social relationships. Any comments?	S	Giving language related feedback + Seeking language related feedback
→ Samar said at 5:22 p.m. on Apr 2, 2014 Oh I have just realised that there are a difference between using the two words !! affair can be used to a love relationships between two people but relationships is more formal and can be used to describe the sort of relationships that we are talking about here ☺ anyway I edited that and changed to relationships	S	Giving language related feedback + Elaborating
Samar wrote at 5:23 p.m. on Apr 2, 2014 free to manage their affairs relationships among themselves as they	S	Correcting another's existing text
→ Miss Wesam said at 2:50 p.m. on Apr 4, 2014 Excellent girls I am so happy with your work so far, keep doing the work together it is really great	T	Encouraging + Expressing emotions + Promoting group cohesion

The wiki interaction started with Samar's expanding on Laila's ideas about cultural relationships (see extract 32). Miss Wesam initiated the previous interaction when she posted a comment questioning Samar's use of the word 'affair' in her text. She showed her curiosity towards what Samar had written, and at the same time invited students to think together about alternative vocabulary. Here, Miss Wesam used language as a mediational tool to stimulate students' mutual discussion. Students engaged with each other in a collaborative dialogue, whereby they shared their answers in relation to what Miss Wesam had questioned. Laila commented on Samar's writing by stating that the use of vocabulary did not fit the context, and therefore she provided alternative words, such as 'affinity' and 'relation' and sought her peers' feedback on these proposed alternatives. Sue engaged with Laila's contributions; she built on what Laila suggested

by sharing the meaning of ‘affinity’ and at the same time suggested the appropriateness of using ‘relationship’ or ‘social relationships’ over ‘affinity’. Samar realised that she could improve the text. Based on the teacher’s intervention and her peers’ comments, she noticed that there is a difference between ‘affair’ and ‘social relationship’. Her realisation was expressed by the use of the discourse marker ‘oh’. Accordingly, she revised the text and replaced the word ‘affair’ with the word ‘relationship’. Miss Wesam intervened to express her positive attitude towards students’ work and at the same time encouraged them. The following extract represents similar teacher behaviour.

Extract 37

Wiki interaction	By	Types of comments /edits
<p>Miss Wesam said at 3:20 p.m. on Apr 11, 2014 I have noticed one thing that I would like you to look at it again , someone has written the following sentence "The bride buys many jewelries and golds" , can you check together to what extent this sentence grammatically correct..</p>	T	Promoting giving language related feedback
<p>→ Samar said at 10:30 p.m. on Apr11, 2014 Teacher I think it should be in the past simple so we can say the bride bought jewelries and golds I think because we are talking about the past we need to use past simple what do you think girls ??</p>	S	Giving language related feedback + Giving clarification + Seeking peers language related feedback
<p>→ Laila said at 1:58 p.m. on Apr12, 2014 I don't know what is the wrong in this sentence but maybe the word many is not suitable with golds and jewelries ? is that the mistake teacher ?</p>	S	Giving language related feedback + Seeking teacher language related feedback
<p>→ Eman said at 3.02 p.m. on Apr12, 2014 I think Samar's answer correct I don't see any other mistakes</p>	S	Giving language related feedback
<p>→ Miss Wesam said at 9:06 p.m. on Apr12, 2014 Girls you have to know that there are some words in English that do not have a plural form, jewelries and golds are examples ... so please correct these mistakes on your text .</p>	T	Giving language related feedback+ Promoting editing behaviour
<p>→ Samar said at 9:17 p.m. on Apr 12, 2014 oh really thanks teacher I edited these mistakes☺</p>	S	Acknowledging + Thanking
<p>Samar wrote at 9:16 p.m. on Apr 12, 2014 The bride buys many jewelries and golds jewelry and gold</p>	S	Correcting another's existing texts
<p>→ Miss Wesam said at 8:49 p.m. on Apr13, 2014 Excellent great job</p>	T	Encouraging

Miss Wesam pointed out some grammatical mistakes, more specifically the plural form of the words ‘jewellery’ and ‘gold’, and she asked students to check together the form of the sentence. This appeared to stimulate students’ collaborative behaviours. That is, they took turns to post their contributions. Samar, Laila and Eman engaged in a discussion to check the correctness of what the teacher pointed out. The discussion was initiated by the teacher, but then she left the floor to the students. Samar posted her opinion about the sentence and explained that using past simple would be more appropriate in this

context. She then sought feedback from her peers to check whether or not they agreed about what she had suggested. Her use of 'we' here suggests her inclination to behave as a member of the group and exhibits a joint responsibility in resolving the linguistic problem posted by the teacher. Laila expressed her view and seemed unsure about the mistakes in the sentence. She explained that the mistake in the sentence could be the use of 'many' and then she sought feedback from the teacher. Eman agreed with what was suggested by Samar. In this extract, students themselves were unable to resolve the linguistic problem correctly. They took turns to express their views but without actually being able to find the correct answer. After the students' posts, Miss Wesam posted a comment to explain to the students the correct form. She then asked students to correct the mistakes in the text rather than correcting the text herself. Samar acknowledged the teacher and edited the wiki page according to the teacher's feedback.

Miss Wesam seemed to play an effective role in stimulating students' online discussion. At interview she suggested that she was trying to make the activity a student-centred activity. Furthermore, she acknowledged that she knew that the answer was at students' language level and that some students in the group could answer it. Therefore, she opted to encourage peer feedback rather than giving a direct answer.

I feel it was my responsibility to make the wiki a student-centred context. I did not want them to ask me but rather ask those who were in the group (...). I am sure that they know the correct answer; that is why I tried to avoid giving the direct correct answer. I wanted them to ask and feel curious about finding the answer (...) I know that there are excellent girls in the group who can give the correct answer, so I posted comments for them to ask each other and again to work together rather than depending on me (Miss Wesam, stimulated recall interview).

Students declared that because the teacher was instructing them to participate, they were responding to others. For example, Sue felt that her comments were ignored sometimes; however, because Miss Wesam instructed her group members, she got multiple-answers. Laila, also felt that because Miss Wesam was asking them questions, it was necessary to engage with what others had written to be able to respond. Similarly, Samar tried to find the best answer for her friends because the teacher asked them to do so. She valued the teacher's intervention since it encouraged others students in her group to read her work and to comment on it. Their interview quotes elaborate on these points.

You know sometimes some of my friends ignored my comments, but because the teacher pointed this out and asked them to reply, they

replied to me. That was really useful, because I got answers from more than one friend in my group (Sue).

I asked them to provide feedback on my writing, but no one posted anything until the teacher asked them to; that is why you know the teacher should be there. This will encourage us as students to reply to each other and to read each other's writing because we want to participate. If we do not do this, we will have nothing to say or add (Laila).

Sometimes when I asked my friends to read my writing not all of them responded, but the teacher was helpful. She asked them to read my writing in order to improve our wiki page. If the teacher had not been there, I could not have forced them to read my writing, give me comments or to answer my questions (...). She encouraged us to work, giving us ideas and posting questions that made us think. I took her questions seriously and looked for the best and correct answer to post before my group members did (Samar).

Throughout the activity, Miss Wesam not only encouraged *collaborative dialogue* amongst students, but she also asked students to share their ideas with others. Consider the following extract as an example of this teacher's behaviour.

Extract 38

Wiki interaction	By	Types of comments/edits
<u>Laila said at 2:41 p.m. on Apr 11, 2014</u> Girls I know that we have not planned to write anything about dress in the Kuwaiti culture but after reading the page I feel that it needs some addition especially that if you are a tourist you certainly want to know what to wear when visit a country such as Kuwait , therefore, I feel that we need to add a section about Dress in the Kuwaiti culture I added the sub-title but need help with organising and generating some interesting ideas any thoughts ?	S	Organising the work + Suggesting+ Seeking peers feedback
<u>Miss Wesam said at 3:19 p.m. on Apr 11, 2014</u> come in girls share your ideas with Laila , you are about to finish your page !	T	Promoting giving feedback + Eliciting ideas
→ <u>Sue said at 5:08 p.m. Apr 11, 2014</u> yes I think It can be an interesting point, what about starting the first paragraph writing saying that we have two kinds of dress modern western style and traditional clothes then we can write in details about these ?? what do you think?	S	Giving feedback + Elaborating + Seeking peers feedback
→ <u>Samar said at 10:38 p.m. on Apr 11, 2014</u> Yes I agree what about writing the following sentence as s topic sentence " Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes" This is the main thesis statement shall I write it ??	S	Agreeing + Suggesting+ Elaborating+ Seeking peers permission
→ <u>Laila said at 1:56 p.m. on Apr 12, 2014</u> It is really a good topic sentence Samar, start writing the section and I will add my ideas latter on when I read what you have written	S	Giving feedback + Organising the work
<u>Samar wrote at 9:16 p.m. on Apr 12, 2014</u> <u>Dress in Kuwaiti culture is divided into two main categories , the formal traditional clothes and a modern western styled clothes.</u>	S	Adding new ideas
<u>Laila wrote at 8:56 p.m. on Apr 13, 2014</u> <u>The formal traditional clothes for women is wearing "abaia" which means a large black piece of clothing that covers women body and they can wear it after wearing their normal clothes. In addition, as Islamic country, most women in the Kuwaiti society cover their hair with a scarf which called in Kuwaiti dialect "Malfa'a". It can be colourful and should cover the women's hair.</u>	S	Expanding on another's existing ideas
<u>Miss Wesam said at 9:28 p.m. on Apr 13, 2014</u> excellent girls	T	Encouraging

Students were iteratively adding new ideas and reorganising the content of their wiki. Although, students had not planned to write about how people dress in Kuwaiti culture, Laila proposed this idea and sought feedback from others to incorporate the idea into the wiki text (an iterative planning process). Laila's post was followed by Miss Wesam's post, whereby she encouraged students to engage with what Laila had suggested. Other group members such as Sue and Samar elaborated and transferred Laila's idea into main points and a topic sentence. Sue narrowed the focus and suggested writing about two main types of clothes: the western style and traditional clothes. Samar agreed on incorporating these points and based on this, she proposed a topic sentence for the

paragraph that students could write in their wiki text. As a way of considering other group members' perspectives, Samar sought from them permission to write the topic sentence. Laila positively acknowledged Samar and provided feedback on her topic sentence. She asked her to start writing on the wiki page and informed her that she was going to expand and add on what would be added. The students' discussion in the wiki was followed by Samar and Laila's acts of writing in the wiki page. Samar added the topic sentence, which was then expanded and elaborated on by Laila. These collaborative behaviours were valued by Miss Wesam, who intervened to encourage the students.

As seen in previous extracts, from the initial stages of the activity, Miss Wesam intervened to encourage students and to praise the students' work as a group. Her positive feedback seemed to have a positive effect on students' engagement in the wiki activity. For example, Laila mentioned that her phrases of encouragement pushed her to work harder, whereas Sue believed that simply knowing that the teacher was observing and appreciating their work, motivated her to participate. Similarly, Eman felt that there was value in her work, since someone else other than her group members was reading it (i.e., the teacher). This motivated her to write better and to finish on time. All these points were highlighted in students' interviews.

She was always encouraging us. I really like the fact that she mentioned my name and said "Laila you did a great job", "excellent girls"; these phrases helped me to work harder (Laila).

It is really good to have her because you feel motivated when the teacher is looking at the work this. This made us feel motivated, especially when she said "good" or "excellent to our group page", I felt like there was someone who appreciated what we were doing as a group (Sue).

I feel that our work is really important because the teacher is reading it, so I consider the teacher's comments seriously. I feel happy when she praises us (...). When she posts positive feedback I feel so happy and this encourages me to keep working and to write better over time (Eman).

Although students seemed motivated in the activity, there were some issues that were mentioned by students in relation to their collaboration in the wiki activity. That is, Laila and Samar avoided criticising other's ideas and tried to be as courteous as possible when commenting on other's work, because they did not want to hurt their friends' feelings or

embarrass them. Most of the students (Laila, Eman and Sue) felt that they were not in a position to criticise other's work as long as the teacher was present. Although Laila has good English language abilities, she expressed her uncertainty about what she was suggesting to her friend and preferred to wait for the teacher's feedback. Furthermore, Eman expressed her preference for the teacher's feedback over peer feedback, since she cared more about the teacher's feedback. Sue and Samar seemed to lack confidence in their language skills. Furthermore, Sue did not want to disappoint the teacher by commenting wrongly on another's work.

I felt sometimes reluctant because the teacher was there, she could give feedback if there was something wrong, but I was trying my best to write positive feedback about other people's writing. I did not want to hurt her (she is referring to other group members), even if I did not like her ideas. I would just say that I like them (...). I felt sometimes shy because I am not a language teacher. I do not know whether what I tell others is right or wrong. I need to wait to see if the teacher says 'good,' then that means there are no grammatical problems. If there was editing then I would check what was wrong (Laila).

I do not know, but I prefer this (she means feedback) from the teacher because some of my classmates are not in a position to critique my work and they may say, 'oh it is not that good,' while in fact the teacher feels that it is good enough, so I do not know. I take my teacher's comments more seriously than my group mates (Eman).

Because I feel unsure about my knowledge because I am not the teacher or native speaker, so maybe my advice is wrong, then my friends will learn something wrong and the teacher may feel disappointed in my language level. Something like this you know, but when the teacher asked me to share my opinions, I felt obligated to do so; I felt that I needed to post an answer (Sue).

I do not want to embarrass her; I do not want to lose her. I tried as much as I could to be polite with others when working with them. We had to respect their ideas even if we did not like them (...), but I was not confident about correcting grammar mistakes (Samar).

Thus, students appeared to be concerned about their relationships with others when writing collaboratively in the wiki. Although the previous extracts did present some examples of social interaction between students, interviewing them illuminated further issues. That is, students acknowledged that writing collaboratively in the wiki maintained their social relationships with others. Consider the following interview quotes for more illustration.

My relationships with them became stronger and better (...). I developed my social relationships with them. For example before writing in the wiki, one of the students was not really close to me, but now we have become very close friends (Samar).

I get to know them better ahm because our relationship has developed. Before using a wiki, I had not even worked with these girls (she means her group members), but having them in my group developed my social personal relationships especially with Samar and Laila (Sue).

Also interacting online has broken all formal boundaries and lines; now I feel that my relationship with them has developed (Eman).

Abbreviations

CALL	Computer Assisted Language Learning
CMCD	Computer Mediated Discourse Analysis
CSCL	Computer Supported Collaborative Learning
EFL	English as a Foreign Language
ELRC	E-Learning Regional Conference
ELT	English Language Teaching
ESL	English as a Second Language
ESP	English for Specific purposes
FL	Foreign language
FTF	Face to Face
ICDL	International Computer Driving License
ICT	Information Computer Technology
IRF	Initiation-Response- Feedback
IT	Information Technology
KU	Kuwait University
LREs	Language Related Episodes
PAAET	The Public Authority of Applied Education and Training
SCT	Sociocultural Theory
SL	Second Language
S-S	Student-Student interaction
T-S	Teacher-Student interaction
TESOL	Teaching English to Speaker of Other Languages
ZPD	Zone of Proximal Development

References

- Aita, V., & McIlvain, H. (1999). An armchair adventure in case study research. In B. F. Crabtree & W. L. Miller (Eds.), *Doing qualitative research* (2nd ed., pp. 253-268). Thousand Oaks, CA: Sage.
- Al Ajmi, A., & Ali, H. (2014). Collaborative writing in group assignment in an EFL/ESL classroom. *English Linguistics Research*, 3(2), 1-17.
- AlAjmi, S. (2011). *Factors influencing information and communication technology implementation in government secondary schools in Kuwait* (Doctoral dissertation). Retrieved October 30, 2014, from https://ore.exeter.ac.uk/repository/bitstream/handle/10036/3682/AlajmiS_fm.pdf?sequence=3
- Ali, S. (2012, May 22). Re: About the ELT general supervision blog [web log post]. Retrieved from <http://eltgeneralsupervision.wordpress.com/about/>
- Al-Darwish, S. (2012). The role of teacher questions and the socratic methods in EFL classrooms in Kuwait. *World Journal of Eductaion*, 2(4), 76-84.
- Al-Edwani, A. (2005). *Factors contributing to langauge difficulties in learning English as a foreign language among students in the College of Basic Education in Kuwait*. (Unpublished doctoral dissertation), University of Newcastle, UK.
- Al-Rubaie, R. (2010). *Future teachers, future perspectives, the story of English in Kuwait* (Doctoral dissertation). Retrieved June 20, 2014, from <https://ore.exeter.ac.uk/repository/bitstream/handle/10036/119730/Al-RubaieR.pdf?sequence=1>
- Al Sharija, M., Qablan, A., & Watters, A. (2012). Principals, teachers, and student's perception of the information and communication technology in Kuwait secondary schools (rhetoric and reality). *Journal of Education and Practice*, 13(12), 91-99.
- Alexander, R. (2008a). Culture, dialogue and learning: Notes on emerging pedagogy. In N. Mercer & S. Hodgkinson (Eds.), *Exploring talk in school* (pp. 91-114). London: Sage.
- Alexander, R. (2008b). *Towards dialogic teaching: Rethinking classroom talk* (4th ed.). New York: Dialogos.

- Alharbi, G. (2012). Primary school teachers' perceptions regarding ICT usage and equipment in Kuwait. *Journal of International Education Research*, 8(1), 55-62.
- Aljaafreh, A., & Lantolf, J. P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78(4), 465-483.
- Alshumaimeri, Y. (2011). The effects of wikis on foreign language students' writing performance. *Procedia-Social and Behavioral Sciences*, 28, 755-763.
- Alyousef, H., & Picard, M. (2011). Cooperative or collaborative literacy practices: Mapping metadiscourse in a business students' wiki group project. *Australasian Journal of Educational Technology*, 27(3), 463-480.
- Anderson, T., Rourke, L., & Garrison, R. (2001). Assessing teaching presence in a computer conferencing context. *Journal of Asynchronous Learning Networks*, 5(2), 1-17.
- Arndt, V. (1993). Responses to writing: Using feedback to inform writing process. In M. Brock & L. Walters (Eds.), *Teaching composition around the pacific rim: politics and pedagogy* (pp.90-116). Clevedon: Multilingual Matters
- Arnold, N., Ducate, L., & Kost, C. (2009). Collaborative writing in wikis: Insights from a culture project in a German class. In L. Lomicka & G. Lord (Eds.), *The next generation: Social networking and online collaboration in foreign language learning* (pp. 115-144). San Marcos, TX: CALICO.
- Arnold, N., Ducate, L., & Kost, C. (2012). Collaboration or cooperation? Analyzing group dynamics and revision processes in wikis. *CALICO Journal*, 29(2), 224-248.
- Arnold, N., Ducate, L., Lomicka, L., & Lord, G. (2009). Assessing online collaboration among language teachers: A cross-institutional case study. *Journal of Interactive Online Learning*, 8(2), 121-139.
- Attia, M. (2011). *Teacher cognition and the use of technology in teaching Arabic to speakers of other languages* (Doctoral dissertation). Retrieved April 16, 2015, from <http://mariamattia.com/wp-content/uploads/2012/10/Mariam-Attia-PhD-Thesis-Final.pdf>

- Aydin, Z., & Yildiz, S. (2014). Using wikis to promote collaborative EFL writing. *Language Learning & Technology, 18*(1), 160-180.
- Barbour, R. (2008). *Introducing qualitative research: A student guide to the craft of doing qualitative research*. London: Sage.
- Baxter, S., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report, 13*(4), 544-559.
- Beatty, K. (2010). *Teaching and researching computer assisted language learning* (2nd ed.). London: Pearson Education.
- Beatty, K., & Nunan, D. (2004). Computer mediated collaborative learning. *System, 32*, 165-183.
- Berg, L. (2007). *Qualitative research methods for social sciences*. London: Pearson.
- Berge, Z. (1995). Facilitating computer conferencing: Recommendations from the field. *Educational Technology, 35*(1), 22-30.
- Bernard, H., & Ryan, G. (2010). *Analyzing qualitative data: Systematic approaches*. Thousand Oaks, CA: Sage.
- Block, D. (2003). *The social turn in second language acquisition*. Edinburgh, UK: Edinburgh University Press.
- Boyd, M. (2012). How teacher talk can guide student exploratory talk: Communication, conjecture , and connections in a fourth and fifth grade ELL classroom. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classrooms applications of sociocultural theory* (pp. 3-18). Charlotte, NC: Information Age Publishing.
- Bradley, L., Lindstrom, B., & Rystedt, H. (2010). Rationalities of collaboration for language learning in a wiki. *ReCALL, 22*(2), 247-265.
- Bradley, L., Lindstrom, B., Rystedt, H., & Vigmo, S. (2011). Language learning in a wiki: Students' contributions in a web-based learning environment. *Themes in Science and Technology Education, 3*(1-2), 63-80.
- Brooks, L., & Swain, M. (2009). Languaging in collaborative writing: Creation of and response to expertise. In A. Mackey & C. Polio (Eds.), *Mulyiple perspectives on interaction: Second langauge research in honor of Susan M. Gass* (pp. 58-89). New York: Routledge.

- Bruffee, K. (1984). Collaborative writing and the conversation of mankind. *College English*, 46(7), 635-652.
- Bruffee, K. (1995). Sharing our toys: Cooperative learning versus collaborative learning. *Change*, 27(1), 12-18.
- Carcary, M. (2009). The research audit trail- enhancing trustworthiness in qualitative inquiry. *The Electronic Journal of Business Methods*, 7(1), 11-24.
- Casanave, C. (2010). Case studies. In B. Paltridge & A. Phakiti (Eds.), *Continuum companion to research methods in applied linguistics* (pp.66-79). London, UK: Continuum.
- Castañeda, D., & Cho, M. (2012). The role of wiki writing in learning Spanish grammar. *Computer Assisted Language Learning*, 26(4), 334-349.
- Chambers, A., & Bax, S. (2006). Making CALL work: Towards normalisation. *System*, 34, 465-479.
- Chao, J., & Lo, H. (2011). Students' perceptions of wiki-based collaborative writing for learners of English as a foreign language. *Interactive Learning Environment*, 19(4), 395-411.
- Chapelle, C., & Jamieson, J. (1990). Internal and external validity issues in research on CALL effectiveness. In P. Dunkel (Ed.), *Computer assisted language learning and testing: Research issues and practice* (pp. 37-59). New York: Newbury house.
- Chiu, C., & Chuang, C. (2007). *How teachers intervene in collaboration among distributed students at the elementary level*. Paper presented at the World Conference on Educational Multimedia, Hypermedia & Telecommunications, AACE ED-MEDIA Vancouver, BC, Canada
- Chiu, M. (2004). Adapting teacher interventions to student needs during cooperative learning: How to improve student problem solving and time on-task. *American Educational Research Journal*, 41(2), 365-399.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research methods in education* (7th ed.). London: Routledge.
- Cole, M. (2009). Using wiki technology to support students' engagement. Lessons from teachers. *Computers and Education*, 52(1), 141-146.
- Comas-Quinn, A., De los Arcos, B., & Mardomingo, R. (2012). Virtual learning Environments (VLEs) for distance language learning : Shifting tutor roles

- in a contested space for interaction. *Computer Assisted Language Learning*, 25(2), 129-143.
- Compton, L. (2009). Preparing language teachers to teach language online: A look at skills, roles, and responsibilities. *Computer Assisted Language Learning*, 22(1), 73-99.
- Connor, U., & Asenavage, K. (1994). Peer response groups in ESL writing classes: How much impact on revision? *Journal of second language writing*, 3(3), 257-276.
- Creswell, J. (2005). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Upper Saddle River, NJ: Merrill.
- Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five designs* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA: Sage.
- Cullen, R., Kullman, J., & Wild, C. (2013). Online collaborative learning on an ESL teacher education programme. *ELT Journal*, 67(4), 425-434.
- Curtis, D., & Lawson, M. (2001). Exploring collaborative online learning. *Journal of Asynchronous Learning Networks*, 5(1), 21-34.
- Dabao, A., & Blum, A. (2013). Collaborative writing in pairs and small groups: Learners' attitudes and perceptions. *System*, 41, 365-378.
- Dale, H. (1994). Collaborative writing interaction in one ninth-grade classroom. *Journal of Educational Research*, 87(6), 334-344.
- Darke, P., Shanks, G., & Broadbent, M. (1998). Successfully completing case study research: Combining rigour, relevance and pragmatism. *Information System Journal*, 8(4), 273-289.
- De Guerrero, M. C. M., & Villamil, O. S. (2000). Activating the ZPD: Mutual scaffolding in L2 peer revision. *The Modern Language Journal*, 84(1), 51-68.
- De Jong, E. (2012). Teacher discourse and peer interaction in linguistically diverse classrooms. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classroom applications of sociocultural theory* (pp. 191-213). Charlotte, NC: Information Age Publishing.
- De la Colina, A., & Garcia Mayo, P. (2007). Attention to form across collaborative tasks by low-proficiency learners in an EFL setting. In M. P.

- Garcia Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 91-116). Clevedon: Multilingual Matters.
- Deni, A., & Zainal, Z. (2011). Peer-editing practice in the writing classroom: Benefits and drawbacks. *Advances in language and literary studies*, 2 (2), 92-107
- Denzin, N. (1978). *The research art: A theoretical introduction to sociological methods*. New York: Praeger.
- Denzin, N. (1989). *Interpretive Interactionism*. Newbury Park, CA: Sage.
- Denzin, N., & Lincoln, Y. (2008). Introduction: The disciplines and practice of qualitative research. In N. Denzin & Y. Lincoln (Eds.), *The landscape of qualitative research* (3rd ed.). Thousand Oaks: Sage Publications.
- Derderian-Aghajanian, A., & Cong, W. (2012). How culture affects on English Language Learners' (ELL's) outcomes, with Chinese and Middle Eastern immigrant students. *International Journal of Business and Social Science*, 3(5), 172- 180.
- Dickinson, D. (1986). Cooperation, collaboration, and a computer: Integrating a computer into a first-second grade writing program. *Research in The Teaching English*, 20(4), 357-378.
- Díez-Bedmar, M., & Pérez-Paredes, P. (2012). The types and effects of peer native speakers' feedback on CMC. *Language Learning & Technology*, 16(1), 62-90.
- Dillenbourg, P., Barker, M., Blaye, A., & O'Malley, C. (1996). The evolution of research on collaborative learning. In E. Spada & P. Reiman (Eds.), *Learning in humans and machine: Towards an interdisciplinary learning science* (pp189-211). Oxford, UK: Elsevier.
- Dillenbourg, P., & Schneider, D. (1995). *Collaborative learning and the Internet*. Retrieved November 2, 2012, from <http://tecfasun1.unige.ch/tecfa/tecfa-research/CMC/colla/iccai95>
- Dillenbourg, P. (1999). What do you mean by collaborative learning?. In P. Deillenbourg (Ed.), *Collaborative learning: Cognitive and computational approaches* (pp.1-19). Oxford, UK: Elsevier.
- Ding, M., Li, X., Piccolo, D., & Kulm, G. (2007). Teacher interventions in cooperative-learning mathematics classes. *Journal of Educational Research*, 100 (3), 162-175.

- Dobao, A. (2012). Collaborative writing tasks in the L2 classroom: Comparing group, pair, and individual work. *Journal of Second Language Writing*, 21(1), 40-58.
- Donato, R. (1994). Collective scaffolding in second language learning. In J. Lantolf & G. Appel (Eds.), *Vygotskian approaches to second language research* (pp.33-56). Norwood, NJ: Albex.
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classroom. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 27-50). Oxford,UK: Oxford University Press.
- Donato, R. (2004). Aspects of collaboration in pedagogical discourse. *Annual Review of Applied Linguistics*, 24, 284-302.
- Dooly, M. (2008). Constructing Knowledge together. In M. Dooly (Ed.), *Telcollaborative language learning: A guidebook to moderating intercultural collaboration online* (pp. 21-45). Bern, Switzerland: Peter Lang.
- Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford, UK: Oxford University Press.
- Dörnyei, Z., & Csizèr, K. (2012). How to design and analyze surveys in SLA research. In A. Mackey & S. Gass (Eds.), *Research methods in second language acquisition: A practical guide* (pp. 74-94). Malden, MA: Wiley-Blackwell.
- Ducate, L., Lomicka, L., & Moreno, N. (2011). Wading through the world of wiki: An analysis of three wiki projects. *Foreign Language Annals*, 44(3), 495-524.
- Duff, P. (2008). *Case study in applied linguistics*. New York: Lawrence Erlbaum.
- Duff, P. (2012). How to carry out case study research. In A. Mackey & S. Gass (Eds.), *Research methods in second language acquisition: A practical guide* (pp.95-116). Malden, MA: Wiley-Blackwell.
- Egbert, J. (2005). Conducting research on CALL. In J. Egbert & G. Petrie (Eds.), *CALL research perspectives* (pp. 1-8). Mahwah, NJ:Lawrence Erlbaum.

- Elola, I., & Oskoz, A. (2010). Collaborative writing: Fostering foreign language and writing convention development. *Language Learning & Technology*, 14(3), 51-71.
- ELT General Supervision Team (2012). *New recruits intermediate and secondary school teachers' training courses*. Retrieved May 15, 2014, from <https://eltgeneralsupervision.wordpress.com/training-courses/>
- ELT General Supervision Team. (2013a). *A course For ELT supervisor*. Retrieved May 11, 2014, from <https://eltgeneralsupervision.files.wordpress.com/2011/11/new-supervisors-pamphlet-ok2012-2013.pdf>
- ELT General Supervision Team. (2013b). *A guidelines for the nominees for the position of supervisors & heads of department (B)*. Retrieved December 15, 2014, from <https://eltgeneralsupervision.files.wordpress.com/2011/11/b.pdf>
- Ernest, P., Guitert Catasús, M., Hampel, R., Heiser, S., Hopkins, J., Murphy, L., & Stickler, U. (2012). Online teacher development: Collaborating in a virtual learning environment. *Computer Assisted Language Learning*, 26(4), 311-333.
- Ferris, D. (1997). The influence of teacher commentary on student revision. *TESOL Quarterly*, 31(2), 315-319.
- Ferris, D. (2006). Does error feedback help student writers ? New evidence on short – and long term effects of written error correction. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Contexts and issues* (pp. 81-105). New York: Cambridge University Press.
- Flewitt, R., Hampel, R., Hauck, M., & Lancaster, L. (2009). What are multimodal data and transcription? In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis* (pp. 40-53). London: Routledge.
- Flick, U. (2006). *An introduction to qualitative research* (3rd ed.). London: Sage.
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219-245.
- Friedman, D. (2012). How to collect and analyze qualitative data. In A. Mackey & S. Gass (Eds.), *Research methods in second language acquisition: A practical guide* (pp.180-200). Malden, MA: Wiley-Blackwell.
- Fung, Y. (2010). Collaborative writing features. *RELC Journal*, 41(1), 18-30.

- Garrison, R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105.
- Garrison, R., Anderson, T., & Walter, A. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. *American Journal of Distance Education*, 15(1), 7-23.
- Gass, S., & Mackey, A. (2000). *Stimulated recall methodology in second language research*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Gass, S., & Varonis, M. (1994). Input, interaction, and second language production. *Studies in Second Language Acquisition*, 16, 283-302.
- Godwin-Jones, R. (2003). Emerging technologies, blogs and wikis: Environments for online collaboration. *Language Learning & Technology*, 7(2), 4-11.
- Gonzalez-Edfelt, N. (1990). Oral interaction and collaboration at the computer: Learning English as a second language with the help of your peers. *Computers in the Schools: Interdisciplinary Journal of Practice, Theory, and Applied Research*, 7(1-2), 53-90.
- Grant, L. (2009). 'I don't care do ur own page!': A case study of using wikis for collaborative work in a UK secondary school. *Learning, Media and Technology*, 34(2), 105-117.
- Gray, D. (2009). *Doing research in the real world* (2nd ed.). London: Sage
- Greenfield, R. (2003). Collaborative email exchange for teaching secondary ESL: A case study in Hong Kong. *Language Learning & Technology*, 7(1), 46-70.
- Guo, Z., & Stevens, K. (2011). Factors influencing perceived usefulness of wikis for group collaborative learning by first year students. *Australasian Journal of Educational Technology*, 27(2), 221-242.
- Gutierrez, A. (2006). Sociocultural theory and its application to CALL: A study of the computer and its relevance as a mediational tool in the process of collaborative activity. *ReCALL*, 18(2), 230-251.
- Gutierrez, A. (2008). Microgenesis, method and object: A study of collaborative activity in Spanish as a foreign language classroom. *Applied Linguistics*, 29(1), 120-148.

- Hammersley, M., & Traianou, A. (2012). *Ethics and educational research*. Retrieved April 16, 2015, from <https://www.bera.ac.uk/wp-content/uploads/2014/03/Ethics-and-Educational-Research.pdf>
- Hamouda, A. (2011). A study of students' and teachers' preferences and attitudes towards correction of classroom written errors in Saudi EFL context. *English Language Teaching*, 4(3), 128-141.
- Hampel, R. (2009). Training teachers for the multimedia age: Developing teacher expertise to enhance online learner interaction and collaboration. *Innovation in Language Learning and Teaching*, 3(1), 35-50.
- Hampel, R. (2013). Multimodal computer-mediated communication and distance language learning. In C. Chapelle (Ed.), *The Encyclopedia of Applied Linguistics*. Oxford, UK: Wiley-Blackwell.
- Hampel, R. (2015). Theoretical approaches and research-based pedagogies for online teaching. In R. Hampel & U. Stickler (Eds.), *Developing online language teaching research-based pedagogies and reflective practices: New language learning and teaching environments* (pp.134-149). Houndmills, UK: Palgrave Macmillan.
- Hampel, R., & Hauck, M. (2006). Computer-mediated language learning: Making meaning in multimodal virtual learning spaces. *The JALT CALL Journal*, 2(2), 3-18.
- Hampel, R., & Stickler, U. (2005). New skills for new classrooms: Training tutors to teach languages online. *Computer Assisted Language Learning*, 18(4), 311-326.
- Hampel, R., & Stickler, U. (2012). The use of videoconferencing to support multi-modal interaction in an online language classroom. *ReCALL*, 24(2), 116-137.
- Handsfield, L. (2012). Mediating learning and negotiating curricular ideologies in a fourth grade bilingual classroom. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classrooms applications of sociocultural theory* (pp. 41-63). Charlotte, NC: Information Age Publishing.
- Hauck, M., & Hampel, R. (2005). The challenges of implementing online tuition in distance language courses: Task design and tutor role. In B. Holmberg,

- M. Shelley & C. White (Eds.), *Distance education and languages, evolution and change* (pp.258-277). Clevedon, UK: Multilingual Matters.
- Herring, S. (2004a). Computer Mediated discourse analysis: An approach to researching online behavior. In S. Barab, R. Kling, & J. Gray (Eds.), *Designing for virtual communities in the service of learning* (pp. 338-376). New York: Cambridge University Press.
- Herring, S. (2004b). Content analysis for new media: Rethinking the paradigm. In *New Research for New Media: Innovative Research Methodologies Symposium Working Papers and Readings* (pp.47-66). Minneapolis, MN: University of Minnesota School of Journalism and Mass Communication. Retrieved March 22, 2014, from <http://ella.slis.indiana.edu/~herring/newmedia.pdf>
- Herring, S. (2007). A faceted classification scheme for computer mediated discourse. *language@Internet*, 4(1),1-37. Retrieved April 22, 2014, from <http://www.languageatinternet.org/articles/2007/761>
- Herring, S. (2013). Discourse in Web 2.0: Familiar, reconfigured and emergent. In D. Tannen & A. Tester (Eds.), *Georgetown university round table on languages and linguistics 2011: Discourse 2.0: Language and new media* (pp. 1-25). Washington, DC: Georgetown University Press.
- Hine, C. (2008). Virtual ethnography: Modes, varieties, affordances. In N. Fielding, R. Lee, & B. Grant (Eds.), *The Sage handbook of online research methods* (pp.257-271). Los Angeles, CA: Sage.
- Ho, M., & Savignon, S. (2007). Face to face and computer-mediated peer review in EFL writing. *CALICO Journal*, 24(2), 269-290.
- Holloway, I., & Wheeler, S. (2002). *Qualitative research in nursing* (2nd ed.). Oxford, UK: Blackwell publishing.
- Houghton, C., Casey, D., Shaw, D., & Murphy, K. (2010). Ethical challenges in qualitative research: Examples from practice. *Ethical Issues in Qualitative Research*, 18(1), 15-24.
- Huh, K., & Hu, W. (2005). Criteria for effective CALL research. In J. Egbert & G. Petrie (Eds.), *CALL research perspectives* (pp. 9-21). Mahwah, NJ:Lawrence Erlbaum.

- Hussein, S., Mohammad, H., Al-Ammar, H., Ali, M., Amrani, J., & Akbar, M. (2011). *The ELT national curriculum statement in the State of Kuwait*. Kuwait: Al-fain.
- Hyland, K. (2003). *Second language writing*. Cambridge, UK: Cambridge University Press.
- Hyland, K., & Hyland, F. (2006a). Contexts and issues in feedback on L2 writing: An introduction. In K. Hyland & F. Hyland (Eds.). *Feedback in second language writing: Context and issues* (pp.10-19). New York: Cambridge University Press.
- Hyland, K., & Hyland, F. (2006b). Interpersonal aspects of response: Constructing and interpreting teacher written feedback. In K. Hyland & F. Hyland (Eds.). *Feedback in second language writing: Context and issues* (pp.206-225). New York: Cambridge University Press.
- Javela, S., Bonk, C., & Sirpalethti, S. (1999). A theoretical analysis of social interactions in computer-based learning environments: Evidence for reciprocal understandings. *Journal of Educational Computing Research*, 21(3), 363-388.
- Johnson, D., & Johnson, R. (1996). Cooperation and the use of technology. In D. Jonassen (Ed.), *Handbook of research for educational communication and technology* (pp. 1017-1044). New York: Simon and Schuster Macmillan.
- Judd, T., Kennedy, G., & Cropper, S. (2010). Using wikis for collaborative learning: Assessing collaboration through contribution. *Australasian Journal of Educational Technology*, 26(3), 341-354.
- Junju, W., & Jing, W. (2012). Error feedback on student writing by Chinese tertiary teachers of English. *Chinese Journal of applied linguistics quarterly*, 3, 287-300
- Kao, P. (2010). Examining second language learning: Taking a sociocultural stance. *ARECLS*, 7, 113-131.
- Kaufman, D. (2004). Constructivist issues in language learning and teaching. *Annual Review of Applied Linguistics*, 24, 303-319.
- Kern, R. (2006). Perspectives on technology in learning and teaching languages. *TESOL Quarterly*, 40(1), 183-210.

- Kessler, G. (2009). Student-initiated attention to form in wiki-based collaborative writing. *Language Learning & Technology*, 13(1), 79-95.
- Kessler, G., & Bikowski, D. (2010). Developing collaborative autonomous learning abilities in computer-mediated language learning: Attention to meaning among students in wiki space. *Computer Assisted Language Learning*, 23(1), 41-58.
- Kim, E. (2012). An ESL instructor's strategic teaching in a collaborative learning community. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classrooms applications of sociocultural theory* (pp. 213-231). Charlotte, NC: Information Age Publishing
- Kim, Y. (2008). The contribution of collaborative and individual tasks to the acquisition of L2 vocabulary. *The Modern Language Journal*, 92(1), 114-130.
- Kim, Y., & McDonough, K. (2008). The effect of interlocutor proficiency on the collaborative dialogue between Korean as a second language learners. *Language Teaching Research*, 12(2), 211-234.
- Kitade, K. (2008). The role of offline metalanguage talk in asynchronous computer mediated communication. *Language Learning & Technology*, 12(1), 64-84.
- Kohonen, V. (1992). Experiential language learning: Second language learning as co-operative learner education. In D. Nunan (Ed.), *Collaborative language learning and teaching* (pp. 14-39). Cambridge, UK: Cambridge University Press.
- Kost, C. (2011). Investigating writing strategies and revision behavior in collaborative wiki projects. *CALICO*, 28(3), 606-620.
- Krashen, S. (1985). *The input hypothesis: issues and implications*. Harlow, UK: Longman.
- Kuwait teachers to get cash for using Twitter and Facebook. (2011, August 16). Al-Arabiya News. Retrieved February 22, 2013 from <http://english.alarabiya.net/articles/2011/08/16/162498.html>
- Kvale, S. (2007). *Doing interviews*. London: Sage Publications.
- Lam, Y. (2000). Technophilia v. technophobia: A preliminary look at why second language teachers do or do not use technology in their classrooms. *Canadian Modern Language Review*, 56, 389-420.

- Lamy, M., & Goodfellow, R. (1999). Supporting language students' interaction in web-based conferencing. *Computer Assisted Language Learning*, 12(5), 457-477.
- Lamy, M., & Hampel, R. (2007). *Online communication in language learning and teaching*. New York: Palgrave Macmillan.
- Lantolf, J. (2000a). Introducing sociocultural theory. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp.1-26). Oxford, UK: Oxford University Press.
- Lantolf, J. (2000b). Second language learning as a mediated process. *Language Teaching*, 33(02), 79-96.
- Lantolf, J., & Poehner, M. (2008). Introduction to sociocultural theory and the teaching of second languages. In J. Lantolf & M. Poehner (Eds.), *Sociocultural theory and the teaching of second languages* (pp.1-30) . London: Equinox.
- Lantolf, J., & Thorne, S. (2006). *Sociocultural theory and the genesis of second language development*. Oxford, UK: Oxford University Press.
- Lantolf, J., & Thorne, S. (2007). Sociocultural theory and second language acquisition. In B. V. Patten & J. Williams (Eds.), *Theories in second language acquisition* (pp. 201-224). Mahwah, NJ: Erlbaum.
- Lee, H., & Wang, P. (2013). Discussing the factors contributing to students' involvement in an EFL collaborative wiki project. *ReCALL*, 25(02), 233-249.
- Lee, L. (2010). Exploring wiki-mediated collaborative writing: A case study in an elementary Spanish course. *CALICO*, 27(2), 260-276.
- Leki, I. (1990). Potential problems with peer responding in ESL writing classes. *CATESOL Journal*. 3, 5-17
- Leontiev, A. (1981). *Problems of the development of mind*. Moscow, Russia: Progress publisher.
- Lesser, M. (2004). Learner proficiency and focus on form during collaborative dialogue. *Language Teaching Research*, 8(1), 55-81.
- Leuf, B., & Cunningham, W. (2001). *The wiki way: Quick collaboration on the web*. Boston, MA: Addison Wesley.
- Levy, M., & Stockwell, G. (2006). *CALL dimensions: Options and issues in computer assisted language learning*. Mahwah, NJ: Lawrence Erlbaum.

- Levy, M., Wang, Y., & Chen, N. (2009). Developing the skills and techniques for online language teaching: A focus on the process. *Innovation in Language Learning and Teaching*, 3(1), 17-34.
- Li, M. (2012). Politeness strategies in wiki mediated communication of EFL collaborative writing tasks. *The IALLT Journal*, 42(2). Retrieved December 22, 2013, from http://www.iallt.org/sites/default/files/03_li_final42-2.pdf
- Li, M. (2013). Individual novices and collective experts: Collective scaffolding in wiki-based small group writing. *System*, 41(3), 752-769.
- Li, M. (2014). *Small group interactions in wiki-based collaborative writing in the EAP context* (Doctoral dissertation). Retrieved April 16, 2015, from <http://scholarcommons.usf.edu/etd/5254/>
- Li, M., & Zhu, W. (2011). Patterns of computer mediated interaction in small writing groups using wiki. *Computer Assisted Language Learning*, 26(1), 61-82.
- Liamputtong, P. (2009). *Qualitative research methods* (3rd ed.). Melbourne, Australia: Oxford University Press.
- Liddicoat, A. (2007). *An introduction to conversation analysis*. London: Continuum.
- Lim, W., So, H., & Tan, S. (2010). E-learning 2.0 and new literacies: Are social practices lagging behind?. *Interactive Learning Environment*, 18(3), 203-218.
- Lin, W., & Yang, S. (2011). Exploring students' perceptions of integrating wiki technology and peer feedback into English writing courses. *English teaching: Practice and Critique*, 10(2), 88-103.
- Lincoln, Y., & Guba, E. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage
- Littleton, K., & Hakkinen, P. (1999). Learning together: Understanding the processes of computer based collaborative learning. In P. Dillenbourg (Ed.), *Collaborative learning: Cognitive and computational approaches* (pp. 1-20). Oxford, UK: Elsevier.
- Liu, J., & Sadler, R. (2003). The effect and affect of peer review in electronic versus traditional modes on L2 writing. *Journal of English for academic purposes*, 2(3) 193-227.

- Long, M. (1983). Linguistic and conversational adjustments to non-native speakers. *Studies in Second Language Acquisition*, 21, 557-587.
- Lotman, M. (1988). Text within a text. *Soviet Psychology*, 26(3), 32-51.
- Lund, A. (2006). The multiple contexts of online language teaching. *Language Teaching Research*, 10(2), 181-204.
- Lund, A. (2008). Wikis: A collective approach to language production. *ReCALL*, 20(1), 35-54.
- Lund, A., & Smordal, O. (2006). *Is there a space for the teacher in a wiki?* Paper presented at the Proceedings of the 2006 international symposium on wikis, Odense, Denmark.
- Mahrous, A., & Ahmed, A. (2010). A cross-cultural investigation of students' perceptions of the effectiveness of pedagogical tools: The Middle East, the United Kingdom, and the United States. *Journal of Studies in International Education*, 14(3), 289-306.
- Mak, B., & Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System*, 38(3), 437-455.
- Mangenot, F., & Nissen, E. (2006). Collective activity and tutor involvement in e-learning environments for language teachers and learners. *CALICO Journal*, 23(3), 601-621.
- Maor, D. (2003). The teacher's role in developing interaction and reflection in an online learning community. *Educational Media International*, 40(1-2), 127-138.
- Marshall, C., & Rossman, G. (1989). *Designing qualitative research*. Newbury Park, CA: Sage.
- Martin-Beltran, M. (2012). How do teachers participate, mediate, and intervene in the co-construction of language knowledge during learner interaction? In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classrooms applications of sociocultural theory* (pp. 99-121). Charlotte, NC: Information Age Publishing.
- Mazzolini, M., & Maddison, S. (2003). Sage, guide or ghost? The effect of instructor intervention on student participation in online discussion forums. *Computer and Education*, 40(3), 237-253.

- Mazzolini, M., & Maddison, S. (2007). When to jump in: The role of the instructor in online discussion forums. *Computers & Education, 49*(2), 193-213.
- McCarthy, M. (1991). *Discourse analysis for language teachers*. Cambridge, UK: Cambridge University Press.
- McDonald, K. (2007). Wikipedia projects for language learning. *CALL-EJ Online, 9* (1). Retrieved from <http://callej.org/journal/9-1/mcdonald.html>
- McDonough, K. (2004). Learner- learner interaction during pair and small group activities in a Thai EFL context. *System, 32*(2), 207-224.
- Mercer, N. (1995). *The guided construction of knowledge: Talk amongst teachers and learners*. Philadelphia,PA: Multilingual Matters.
- Mercer, N. (1996). The quality of talk in children's collaborative activity in the classroom. *Learning and Instruction, 6*(4), 359-377.
- Mercer, N. (2003). Helping children to talk and think together more effectively. *POLIFONIA, 7*, 1-26.
- Mercer, N. (2004). Sociocultural discourse analysis: Analysing classroom talk as a social mode of thinking. *Journal of Applied Linguistics, 1*(2), 137-168.
- Mercer, N. (2010). The analysis of classroom talk: Methods and methodologies. *British Journal of Educational Psychology, 80*, 1-14.
- Mercer, N., & Fisher, E. (1992). How do teachers help children to learn? An analysis of teachers' interventions in computer-based tasks. *Learning and Instruction, 2*, 339-355.
- Mercer, N., Littleton, K., & Wegerif, R. (2004). Methods for studying the processes of interaction and collaborative activity in computer-based educational activities. *Technology, Pedagogy and Education, 13*(2), 193-209.
- Merriam, S. (1988). *Case study research in education: A qualitative approach* (2nd ed.). San Francisco, CA: Jossey-Bass.
- Mertens, D. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods* (2nd ed.). Thousand Oaks, CA: Sage.
- Miles, M., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

- Min, T. (2006). The effects of trained peer review on EFL students' revision types and writing quality. *Journal of second language writing*, 15, 118-141
- Ministry of Education. (2008). The national report: Development of education in the state of Kuwait (2004-2008) (Report No. 323). Retrieved May 2, 2015, from http://www.ibe.unesco.org/National_Reports/ICE_2008/kuwait_NR08.pdf
- Mitchell, R., & Myles, F. (2004). *Second language learning theories* (2nd ed.). London: Holder Arnold.
- Mohammed, E. (2008). *The place of writing in the first grade Kuwaiti English education: A sociological case study* (Doctoral dissertation). Retrieved February 10, 2013, from http://eprints.qut.edu.au/26369/1/Elham_Mohammad_Thesis.pdf
- Mohammed, M. (2010). *Using wikis to develop writing performance among prospective English as a foreign language teachers*. Paper presented at the The international Arab conference on Information Technology, Al Kurah, Lebanon.
- Müller-Hartmann, A. (2012). The classroom-based action research paradigm in telcollaboration. In M. Dooly & R. O'Dowd (Eds.), *Research methods for online interaction and exchange* (pp.156-192). Bern, Switzerland: Peter Lang.
- Mumtaz, S. (2000). Factors affecting teachers' use of information and communications technology: A review of the literature. *Journal of Information Technology For Teacher Education*, 9(3), 319-342.
- Murphy, L. (2015). Online language teaching: The learner's perspective. In R. Hampel & U. Stickler (Eds.), *Developing online language teaching research-based pedagogies and reflective practices: New language learning and teaching environments* (pp.45-61). Houndmills, UK: Palgrave Macmillan.
- Mutsuda, P. (2003). Process and post-process: A discursive histort. *Journal of second language writing*, 12(1), 65-83.

- Nami, F., & Marandi, S. (2014). Wikis as discussion forums: Exploring students' contribution and their attention to form. *Computer Assisted Language Learning*, 27 (6), 483- 508.
- Nelson, G. L., & Carson, J. (1998). ESL students' perceptions of effectiveness in peer response groups. *Journal of second language writing*, 7, 113-132.
- Nelson, G. L., & Carson, J. (2006). Cultural issues in peer response: Revisiting "culture". In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Context and issues* (pp. 42-59). New York. Cambridge university Press.
- Nelson, G. L., & Murphy, J. M. (1993). Peer response groups: Do L2 writers use peer comments in revising their drafts? *TESOL Quarterly*, 27(1), 135-141. doi: 10.2307/3586965.
- Nguyen, L. (2011). *Computer mediated collaborative learning in a Vietnamese tertiary EFL context: Process, product, and learners' perceptions* (Doctoral dissertation). Retrieved September 30, 2013, from http://muir.massey.ac.nz/bitstream/handle/10179/2203/02_whole.pdf?sequence=1
- Norris, N. (2009). Error, bias and validity in qualitative research. *Educational Action Research*, 5(1), 172-176.
- Nunan, D. (1992). *Collaborative language learning and teaching*. Cambridge, UK: Cambridge University Press.
- Nunan, D., & Bailey, K. (2009). *Exploring second language classroom research: A comprehensive guide*. Boston, MA: Heinle.
- Ohta, A. (1995). Applying sociocultural theory to an analysis of learner discourse: Learner-learner collaborative interaction in the zone of proximal development. *Issues in Applied Linguistics*, 6(2), 93-121.
- Ohta, A. (2000). Re-thinking interaction in SLA: Developmentally appropriate assistance in the zone of proximal development and the acquisition of L2 grammar. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 51-78). Oxford, UK: Oxford University Press.
- Ohta, A. (2001). *Second language acquisition processes in the classroom: Learning Japanese*. Mahwah, NJ: Lawrence Erlbaum.

- Osman, G., & Herring, S. (2007). Interaction, facilitation, and deep learning in cross-cultural chat: A case study. *The Internet and Higher Education*, 10(2), 125-141.
- Oxford, R. (1997). Cooperative learning, collaborative learning and interaction: Three communicative strands in the language classroom. *The Modern Language Journal*, 81(4), 443-456.
- Parker, K., & Chao, J. (2007). Wiki as a teaching tool. *Interdisciplinary Journal of Knowledge and Learning Objects*, 3, 57-72.
- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage.
- Paulus, T. (1999). The effect of peer and teacher feedback on student writing. *Journal of Second Language Writing*, 8(3), 265-289.
- Pawan, F., Paulus, T., Yalcin, S., & Chang, C. (2003). Online learning: Patterns of engagement and interaction among in-service teachers. *Language Learning & Technology*, 7(3), 119-140.
- Pellet, S. (2012). Wikis for building content knowledge in the foreign language classroom. *CALICO Journal*, 29(2), 224-248.
- Pica, T. (1994). Research on negotiation: What does it reveal about second language learning conditions, processes, and outcomes? *Language Learning*, 44, 493-527.
- Pifarre, M., & Li, L. (2012). Teaching how to learn with a wiki in primary education: What classroom interaction can tell us. *Learning, Culture and Social Interaction*, 1(2), 102-113.
- Pifarre, M., & Staarman, J. (2011). Wiki-supported collaborative learning in primary education: How a dialogic space is created for thinking together. *Computer Supported Collaborative Learning*, 6(2), 187-205.
- Ponterotto, J. (2006). Brief note on the origins, evolution, and meaning of the qualitative research concept "thick description". *The Qualitative Report*, 11(3), 538-549.
- Richards, H., & Schwartz, L. (2002). Ethics of qualitative research: Are there special issues for health services research?. *Family Practice*, 19(2), 135-139.
- Robson, C. (1993). *Real world research: A resource for social scientists and practitioner researchers*. Oxford, UK : Blackwell.

- Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers* (2nd ed.). Oxford, UK: Blackwell.
- Rojas-Drummond, S., Albarran, C., & Littleton, K. (2008). Collaboration, creativity and the co-construction of oral and written texts. *Thinking Skills and Creativity*, 3(3), 177-191.
- Rojas-Drummond, S., & Mercer, N. (2003). Scaffolding the development of effective collaboration and learning. *International Journal of Educational Research*, 39, 99-111.
- Rojas-Drummond, S., Mercer, N., & Dabrowski, E. (2001). Collaboration, scaffolding and the promotion of problem solving strategies in Mexican pre-schoolers. *European Journal of Psychology of Education*, 16(2), 179-196.
- Roschelle, J., & Teasley, S. (1995). The construction of shared knowledge in collaborative problem-solving. In C. O'Malley (Ed.), *Computer supported collaborative learning* (pp. 69-97). Berlin, Germany: Springer-Verlag.
- Saito, H. (1994). Teachers' practices and students' preferences for feedback on second language writing: A case study for adult ESL learners. *The TESL Canada Journal*, 11(2), 46-68.
- Seedhouse, P. (2004). *The interactional architecture of the language classroom: A conversation analysis perspective*. Malden, UK: Blackwell
- Sengupta, S. (1998). Peer evaluation: 'I am not the teacher'. *ELT Journal*, 52(1), 19-26.
- Seow, A. (2002). The writing process and process writing. In J. Richards & W. Renyanda (Eds.), *Methodology in language teaching: An anthology of current practice* (pp. 315-320). Cambridge, UK: Cambridge University Press.
- Shehadeh, A. (2011). Effects and students' perceptions of collaborative writing in L2. *Journal of Second Language Writing*, 20(4), 286-305.
- Shenton, A. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75.
- Shield, L., Hauck, M., & Hewer, S. (2001). *Talking to strangers -the role of the tutor in developing target language speaking skills at a distance*. Paper presented at the Proceedings of UNTELE 2000. Retrieved April 14, 2014 from <http://www.utc.fr/~untele/volume2.pdf>

- Silverman, D. (2006). *Interpreting qualitative data: Methods for analyzing talk, text and interaction* (3rd ed.). London: Sage.
- Sinclair, J., & Coulthard, M. (1975). *Towards an analysis of discourse: The English used by teachers and pupils*. London: Oxford University Press.
- Smiley, J., & Anton, M. (2012). Teachers' roles and mediating strategies of learners' engagement in the L2 classroom. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classrooms applications of sociocultural theory* (pp. 231-249). Charlotte, NC: Information Age Publishing.
- Stake, R. (1994). Case studies. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp.236-247). Thousand Oaks, CA: Sage.
- Stanley, J. (1992). Coaching student writers to be effective peer evaluators. *Journal of Second Language Writing, 1*(3), 217-233.
- Stickler, U., & Hampel, R. (2015). Transforming teaching: New skills for online language learning spaces. In R. Hampel & U. Stickler (Eds.), *Developing online language teaching research-based pedagogies and reflective practices: New language learning and teaching environments* (pp.63-77). Houndmills, UK: Palgrave Macmillan.
- Storch, N. (1999). Are two heads better than one? Pair work and grammatical accuracy. *System, 27*(3), 363-374.
- Storch, N. (2001a). Comparing ESL learners' attention to grammar on three different collaborative tasks. *RELC Journal, 32*(2), 104-124.
- Storch, N. (2001b). How collaborative is pair work? ESL tertiary students composing in pairs. *Language Research Forum, 5*(1), 29-53.
- Storch, N. (2002). Patterns of Interaction in ESL pair work. *Language Learning, 52*(1), 119-158.
- Storch, N. (2005). Collaborative writing: Product, process, and students' reflections. *Journal of Second Language Writing, 14* (3), 153-173.
- Storch, N. (2008). Metatalk in pair work activity: Level of engagement and implications for language development. *Language Awareness, 17* (2), 95-114.
- Storch, N. (2011). Collaborative writing in L2 contexts: Processes, outcomes, and future directions. *Annual Review of Applied Linguistics, 31*, 275-288.
doi: 10.1017/S0267190511000079

- Storch, N. (2012). Collaborative writing as a site for L2 learning in face-to-face and online modes. In G. Kessler, A. Oskoz & I. Elola (Eds.), *Technology across writing contexts and tasks* (pp. 113-129). Texas: Texas State University.
- Storch, N. (2013a). Collaborative Language Learning. In C. Chapelle (Ed.), *The encyclopedia of applied linguistics*. Oxford, UK: Wiley-Blackwell publishing
- Storch, N. (2013b). *Collaborative writing in L2 classrooms: New perspectives on language and education*. Bristol, UK: Multilingual Matters
- Storch, N., & Aldosari, A. (2013). Pairing learners in pair work activity. *Language Teaching Research*, 17(1), 31-48.
- Storch, N., & Wigglesworth, G. (2007). Writing tasks: Comparing individual and collaborative writing. In G. Mayo (Ed.), *Investigating tasks in formal language learning* (pp. 157-177). London: Multilingual Matters.
- Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp.64-81). Cambridge, UK: Cambridge University Press.
- Swain, M. (2000). The output hypothesis and beyond: Mediating acquisition through collaborative dialogue. In J. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 97-114). Oxford, UK: Oxford University Press.
- Swain, M. (2006). Languaging, agency and collaboration. In H. Byrnes (Ed.), *Advanced language learning: The contribution of Holliday and Vygotsky* (pp. 95-108). London: Continuum.
- Swain, M., Kinnear, P., & Steinman, L. (2011). *Sociocultural theory in second language education: An introduction through narratives*. Bristol, UK: Multilingual Matters.
- Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: A step towards second language learning. *Applied Linguistics*, 16(3), 371-391.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal*, 82(3), 320-337.

- Swain, M., & Lapkin, S. (2001). Focus on form through collaborative dialogue: Exploring task effects. In M. Bygate, P. Skehan, & M. Swain (Eds.), *Researching pedagogic tasks: Second language learning, teaching and testing* (pp. 99-118). London: Longman.
- Swain, M., & Watanabe, Y. (2013). Linguaging: Collaborative dialogue as a source of second language learning. In C. Chapelle (Ed.), *The encyclopedia of applied linguistics*. Oxford, UK: Wiley-Blackwell publishing
- Tait, A. (2000). Planning student support for open and distance learning. *Open learning*, 15(3), 287-299.
- Tan, L., Wigglesworth, G., & Storch, N. (2010). Pair interaction and mode of communication: Comparing face to face and computer-mediated communication. *Australian Review of Applied Linguistics*, 33(3), 1-27.
- Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language learning*, 46, 327-369.
- Tsui, A., & Ng, M. (2000). Do secondary L2 writers benefit from peer comments? *Journal of second language writing*, 9 (2), 147-170.
- Underwood, J., & Underwood, G. (1999). Task effects in co-operative and collaborative learning with computers. In K. Littleton & P. Light (Eds.), *Learning with computers: Analyzing productive interaction* (pp. 10-23). London: Routledge.
- Varonis, M., & Gass, S. (1985). Non-native/Non-native conversations: A model for negotiation of meaning. *Applied Linguistics*, 6(1), 71-90.
- Villamil, O. S., & De Guerrero, M. C. (1998). Assessing the impact of peer revision on L2 writing. *Applied Linguistics*, 19(4), 491-514.
- Villamil, O. S., & De Guerrero, M. C. (1998). Sociocultural theory: A framework for understanding the social-cognitive dimensions of peer feedback. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing: Context and issues* (pp.23-41). New York: Cambridge University Press.
- Vygotsky, L. (1978). *Mind in society. The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Walsham, G. (2006). Doing interpretive research. *European Journal of Information Systems*, 15(3), 320-330.

- Ware, P., & Rivas, B. (2012). Researching classroom integration of online language learning projects: Mixed methods approaches. In M. Dooly & R. O'Dowd (Eds.), *Researching online foreign language interaction and exchange* (pp.107-131). Bern, Switzerland: Peter Lang.
- Warschauer, M. (1998). Online learning in sociocultural contexts. *Anthropology & Education Quarterly*, 29(1), 68-88. doi: 10.1525/aeq.1998.29.1.68
- Warschauer, M. (2003). Dissecting the "digital divide": A case study in Egypt. *The Information Society: An International Journal*, 19(4), 297-304.
- Warschauer, M. (2005). Sociocultural perspectives on CALL. In J. Egbert & G. Petrie (Eds.), *CALL research perspectives* (pp. 41-51). Mahwah,NJ: Lawrence Erlbaum.
- Warschauer, M. (2010). Invited commentary: New tools for teaching writing. *Language Learning & Technology*, 14(1), 3-8.
- Warschauer , M., & Grimes, D. (2007). Audience, authorship, and artefact: The emergent semiotics of Web 2.0. *Annual Review of Applied Linguistics*, 27, 1-23.
- Warwick, P., Mercer, N., Kershner, R., & Staarman, J. (2010). In the mind and in the technology: The vicarious presence of the teacher in pupils' learning of science in collaborative group activity at the interactive whiteboard. *Computer and Education*, 55(1), 350-362.
- Watanabe, Y. (2008). Peer-peer interaction between L2 learners of different proficiency levels: Their interactions and reflections. *The Canadian Modern Language Review*, 64(4), 605-635.
- Watanabe, Y., & Swain, M. (2007). Effects of proficiency differences and patterns of pair interaction on second language learning: Collaborative dialogue between adult ESL learners. *Language Teaching Research*, 11(2), 121-142.
- Weasenforth, D., Biesenbach, S., & Meloni, C. (2002). Realizing constructivist objectives through collaborative technologies: Threaded discussions. *Language Learning & Technology*, 6(3), 58-86.
- Webb, N. (2009). The teacher's role in promoting collaborative dialogue in the classroom. *British Journal of Educational Psychology*, 79(1), 1-28.
- Wellington, J. (2000). *Educational research contemporary issues and practical approaches*. London: Continuum.

- Wellington, J., & Szczerbinski, M. (2007). *Research methods for social sciences*. London: Continuum.
- Wells, G., & Chang-Wells, G. (1992). *Constructing knowledge together*. Portsmouth, NH: Heinemann.
- Wen, Y. (2013). Teacher written feedback on L2 student writing. *Journal of language teaching and research*, 4 (2), 427-431.
- Wen, Y., Chen, W., Looi, K., & Xie, W. (2014). Appropriating a representational tool for collaborative language learning: A comparative study of two teachers' enactment. *Research and Practice in Technology Enhanced Learning*, 9(1), 189-208.
- Wertsch, V. (1991). A sociocultural approach to socially shared cognition. In J. Resnick, M. Levine, & S. Teasley (Eds.), *Perspectives on socially shared cognition* (pp.85-100). Washington, DC: American Psychological Association.
- Wertsch, V. (1998). *Mind as action*. Oxford, UK: Oxford University Press.
- Wheeler, S., & Wheeler, D. (2009). Using wikis to promote quality learning in teacher training. *Learning, Media and Technology*, 34(1), 1-10.
- Wichadee, S. (2010). Using wikis to develop summary writing abilities of students in an EFL class. *Journal of College Teaching and Learning*, 7(12), 5-10.
- Wigglesworth, G., & Storch, N. (2009). Pairs versus individual writing: Effects on fluency, complexity and accuracy. *Language Testing*, 26, 445-466.
- Williams, M., & Burdern, R. (1997). *Psychology for language teachers: A social constructivist approach*. Cambridge, UK: Cambridge University Press.
- Wong, L. H., Chen, W., Chai, C., & Gao, P. (2011). A blended collaborative writing approach for Chinese L2 primary school students. *Australasian Journal of Educational Technology*, 27(7), 1208-1226.
- Woo, M. (2013). *Collaborative writing with wikis in upper primary English language classrooms* (Doctoral dissertation). Retrieved June 20th, 2014, from <http://hub.hku.hk/handle/10722/183645>
- Woo, M., Chu, S., Ho, A., & Li, X. (2011). Using wikis to scaffold primary school students' collaborative writing. *Educational Technology and Society*, 14(1), 43-54.

- Woo, M., Chu, S., & Li, X. (2013). Peer-feedback and revision process in a wiki mediated collaborative writing. *Educational Technology Research and Development, 61*(2), 279-309.
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychiatry and Psychology, 17*(2), 89-100.
- Yang, M., Badger, R., & Yu, Z. (2006). A comparative study of peer and teacher feedback in a Chinese EFL writing class. *Journal of second language writing, 15*, 179-200.
- Yates, N. (2008). Wikis and constructivism: Exploring the links. *The JALT CALL Journal, 4*(3), 15-28.
- Yin, R. (2009). *Case study research: Design & methods*. Thousand Oaks, CA: Sage.
- Yoon, B., & Kim, H. (2012). Sociocultural theory as a theoretical framework for understanding teachers' roles in second language learning. In B. Yoon & H. Kim (Eds.), *Teachers' roles in second language learning: Classroom applications of sociocultural theory* (pp. xiii-xxvii). Charlotte, NC: Information Age Publishing.
- Yoon, B., & Kim, H. (Eds.). (2012). *Teachers' roles in second language learning: Classroom applications of sociocultural theory*. Charlotte, NC: Information Age Publishing.
- Zamel, V. (1985). Responding to student writing. *TESOL Quarterly, 19*(1), 79-101.
- Zhang, S. (1995). Re-examining the affective advantage of peer feedback in the ESL writing class. *Journal of Second Language Writing, 4*(3), 209-222.
- Zhang, T., Gao, T., Ring, G., & Zhang, W. (2007). Using online discussion forums to assist a traditional English class. *International Journal on E-Learning, 6*(4), 623-643.
- Zorko, V. (2009). Factors affecting the way students collaborate in a wiki for English language learning. *Australasian Journal of Educational Technology, 25*(5), 645-665.
- Zuengler, J., & Miller, R. (2006). Cognitive and sociocultural perspectives: Two parallel SLA worlds? *TESOL Quarterly, 40*(1), 35-58.

