

Efficacy of Genre-Based Writing Instruction and Learner Collaboration

A Study of Tertiary EFL Learners

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ABSTRACT

The present study investigates the effectiveness of genre-based writing instruction when EFL tertiary-level learners are instructed to produce expository essay in pairs and individually. Studies thus far have found that learners develop their grammar accuracy when writing in pairs. A characteristic of these studies is that the gains of collaborative work are usually measured by outcomes resulting from pair work. The current study differs in that regard, as it set out to provide a text analysis to investigate whether the effects of collaborative practice would also be reflected in individual work after an eight-week long period of collaboration.

The participants in the study were 63 intermediate (IELTS 4.0) EFL undergraduate students enrolled in a public college in Oman. Participants were assigned to two experimental groups: one where they performed in pairs (n=20) and the other (n=21) where all practice was individual, while the Control group (n= 22) was taught in a traditional fashion with no reference to genre instruction. Students in the experimental groups were exposed to the expository essay genre, which was deemed relevant for their study and future career. Data for analysis were gathered through written texts at three testing phases: a pretest, an immediate posttest, and a delayed posttest. The students' written production was analysed for text content and text organisation using a revised analytical rubric, as well as for reduction of narrativity, lexical complexity, and syntactic complexity. Apart from text content and text organization, all variables were operationalized via a number of measures using Coh-Matrix, an advanced automated text analysis tool (McNamara, et al., 2014). Data were also obtained through transcription of learners' audio-recorded dyadic interactions. Learner interactions were analysed for language related episodes (LREs) to explore how collaboration can assist in completing written tasks.

The findings indicated that students in both treatment groups outperformed the Control group in terms of text content, text organisation, and reduction of narrativity. However, only the Pair group outperformed the Control for lexical and syntactic complexity. No difference was found between the experimental groups except for reduction of concreteness; where the Pair group outperformed the Individual group. Analysis of LREs suggested that learner collaboration may assist in completing tasks collaboratively.

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To Fatima

DECLARATION

I 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.

Sign:

Date:

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CHAPTER ONE

Introduction

“Writing means sharing. It's part of the human condition to want to share things - thoughts, ideas, opinions”.

- Paulo Coelho -

1.0 Rationale and background

Hardly anyone can deny that learners' academic success is contingent on successful attainment of advanced writing skills. Similarly, writing is seen as crucial to how far learners can succeed in their future careers. Yet equally critical is the efficacy of writing instruction. An effective teaching approach is instrumental in how much learners, especially those with limited proficiency, can learn and continue to develop. Thus, the reciprocal relationship between writing improvement and instructional efficacy is virtually always persistent. It is this contingency between improvement and instruction that Ortega (2015) calls “instructed development” of writing (p.83).

My story as an EFL instructor began in 2011. At the time, I had recently obtained my Master's degree in TESOL. I was enthusiastic to embark on a teaching position at a tertiary-level institution in Oman. Personally, teaching has always been a passion which I believe, if approached reflectively, can become a highly rewarding experience. Over the years, I have worked to improve my knowledge of English pedagogy- both theoretically and in practice. After all, teaching is a learning journey. Yet with the advance of years, I came to realise that EFL learners in my context do not progress in their English proficiency as much as they are expected to so do. This was most obvious in the case of writing. Students would spend years studying in English courses, yet they barely manage to make little progress. This

phenomenon has always intrigued me. What could be done in order to assist this group of learners to achieve higher progress with respect to their writing skills? And since we know that the teacher and teaching approach could constitute an integral part of how much learners could accomplish, I decided that implementing a novel approach toward writing pedagogy would contribute an answer to the above question. Thus, this research project was motivated chiefly by a problem relevant to foundation-year EFL learners' writing proficiency and the ways it could be promoted.

This study targets foundation-year students enrolled in a pre-sessional, intermediate-level English course at a College of Applied Sciences (CAS) in Oman. Each year, Colleges of Applied Sciences across Oman (five campuses in total) accept over a thousand secondary-school leavers who meet acceptance criteria including English proficiency. Once accepted, learners must complete a General Foundation Program (GFP) after they are streamed into levels of English proficiency based on a locally-developed placement test. Although foundation students are normally exposed to intensive writing instruction, they nonetheless do not manifest satisfactory improvement in their written performance.

Instructional intervention in the current study is based on Systemic Functional Linguistics (SFL) genre approach to writing instruction. Genre is a system whereby individuals accomplish goals in recurrent situations using language, by formulating meanings in reaction to complex social needs and practices (Hyland, 2004). Genres are conceived of as useful tools that help writers to achieve goals and form or define relationships with readers in various social contexts. Pedagogical application of genre is made through a teaching/learning cycle (TLC) which comprises four main stages: Establishing the context, modelling and deconstruction of exemplar texts, joint construction, and independent construction.

Additionally, empirical investigation in the current study capitalizes on a number of key theoretical frameworks in Second Language Acquisition (SLA). In particular, the study is theoretically based on the Input Hypothesis by Krashen (1981, 1982, 1985, 1989), Long's (1981, 1996) Interaction Hypothesis, the Noticing Hypothesis by Schmidt (1990), and Swain's (1985, 1993) Output Hypothesis. The study is also based on the Socio-Cultural theory (SCT) of mind (Cumming, 2018).

This study aims to investigate improvement of learners' academic writing. It proposes the conjunction of Genre-Based Writing Instruction (GBWI) and Collaborative writing (CW) as a novel instructional approach that can potentially assist tertiary EFL learners to improve their writing of the exposition genre. Previous research (e.g., Ahn, 2012; Boettger, 2014; Byrnes, 2009; Byrnes, Crane, Maxim, & Sprang, 2006; Chang & Schleppegrell, 2016; Cheng, 2006, 2007, 2008; Hyon, 2001, 2002; Johns, 2008; Kuiper, Smit, Wachter, & Elen, 2017; Mustafa, 1995; Paltridge, 2004; Tardy, 2006, 2009; Yasuda, 2011, 2015; Lo & Jeong, 2018) has empirically demonstrated that GBWI can help EFL/ ESL learners to gain higher writing proficiency over time.

Similarly, research into collaborative writing (e.g., Dobao, 2012, 2014; Kuiken & Vedder, 2002; Storch, 2002, 2005, 2007; Swain, 2010; Yang, 2014) has as well contributed promising results about the role which learner collaboration could potentially play in assisting learners to improve their writing skills. Yet, there is still to date a dearth of research that has investigated the effect of combining the two types of pedagogy. Since both pedagogies have been found beneficial for growth of L2 learners' academic writing, it would then be valuable to investigate the effect of combining them. Thus, this study comes to fill this gap in literature by investigating if implementing CW as an instructional condition within GBWI would result in improvement of learners' written production.

The current research measures the effects of the instructional intervention using human rating (analytic rubric) as well as measures computed by Coh-Metrix, an advanced computational text analysis tool. There is still to date limited research which has investigated the use of Coh-Metrix to measure instructional effects on change in L2 writing.

1.1 Purpose and Research Questions

This research is driven by the overarching aim which is to investigate the effects of genre-based writing instruction on Omani EFL learners' expository essay writing when they are instructed in pairs and individually. This aim is addressed specifically through the following objectives: i) through quantitative analysis of learners' written essays in terms of text Content, text Organisation, reduction of Narrativity, Lexical complexity, and Syntactic complexity, and ii) through analysis of learner interactions in terms of language related episodes (LREs). Thus, the proposed research questions which drive the current study are:

RQ 1: What is the effect of genre-based writing instruction on text Content?

RQ 2: What is the effect of genre-based writing instruction on text Organisation?

RQ 3: What is the effect of genre-based writing instruction on the reduction of levels of Narrativity?

RQ 4: What is the effect of genre-based writing instruction on Lexical Complexity:

A) As measured by MTLTD?

B) As measured by the reduction of word concreteness?

RQ 5: What is the effect of genre-based writing instruction on Syntactic Complexity

A) As measured by the reduction of syntactic simplicity?

B) As measured by the reduction of sentence syntactic similarity?

RQ 6: How does learner collaboration and interaction assist in completing the writing task?

It should be noted that for the research questions (1-5), each dependent variable will be investigated in terms of individual writing as well as writing in pairs.

1.2 Significance of the study

The significance of this study stems from the fact that it investigates change in L2 writing- a skill that is critical for learners' academic and professional success. Although writing is particularly valuable to tertiary EFL learners who are expected to excel in writing various genres, this group of learners usually has limited access to writing instruction beyond institutional contexts. Consequently, providing learners with effective classroom writing pedagogy is equally pivotal to their academic success. As such, this study proposes the genre-based approach in conjunction with collaborative writing as a potentially useful pedagogy which can promote L2 learners' writing. Since the research on classroom-based collaborative writing "is still relatively small" (Storch, 2018, p. 390), this study hence adds to our ongoing understanding of the potential of learner collaboration in improving L2 writing.

Methodologically, this study proposes a novel research approach toward investigating the effectiveness of collaborative writing as opposed to individual practice. More specifically, while most previous studies tested the efficacy of collaborative writing through requiring pairs to produce a single text jointly which was then compared to texts written by individual learners, learners in this study were invited to complete written tests individually irrespective of the condition in which they received instruction. To put it differently, previous studies tested learners in the same condition in which they received instruction: learners who were taught individually completed tests individually; whereas learners who were instructed in

pairs completed tests in pairs. This approach was not adopted by the current study because it was perceived as problematic. Previous empirical research (e.g., Swain & Lapkin, 1998) had shown that collaborative writing is inherently more time consuming, given the nature of learner interactions and negotiations involved. Thus, controlling for the time required for pairs to complete a test is not easy. This also implies that allocating both pairs and individual learners a similar amount of time to complete a test is unfair and could impact the accuracy of results. Furthermore, the design adopted by previous studies lacks ecological validity since L2 learners are always required to complete written tests individually. As such, it would be more useful to investigate their improvement through requiring learners to write individually after receiving instruction. Finally, claiming that collaborative writing is more effective than individual practice merely through comparing pairs' writing to individual texts lacks fairness, since two learners will usually perform better than one when writing a single text together. The research approach suggested by the current study avoids the above problems and thus promotes the rigour of analysis and accuracy of results.

This study is significant since it employs a computational analysis tool (i.e., Coh-Metrix) in investigating the effect of the proposed instructional intervention. Unlike numerous previous studies that have utilised traditional analysis in investigation of students' written production, this study instead employs Coh-Metrix which is capable of providing objective and reliable analysis of text in terms of discourse and linguistic features. Through the use of Coh-Metrix, the current study provides more comprehensive investigation of learner's writing- through provision of rigorous analysis of aspects that have not received sufficient attention especially when investigated simultaneously (e.g., reduction of narrativity, reduction of concreteness, decrease in syntactic complexity and sentence similarity). Thus, the present study contributes significantly to advancing our understanding of EFL writing, through the use of advanced text investigation software.

1.3 Structure of thesis

The remainder of the thesis is organised in the following order. Chapter 2 offers a discussion of the genre theory, as well as the main approaches of genre pedagogy: Systemic Functional Linguistics (SFL) genre approach, English for Specific Purposes (ESP) genre approach, and New Rhetoric (NR) genre approach. Chapter 3 provides the cognitive and socio-cultural perspectives which lend support to the use of collaborative writing in L2 contexts. The chapter begins by discussing cognitive hypotheses. As such, the Input Hypothesis is discussed first, followed by the Interaction Hypothesis, the Noticing Hypothesis, and finally the Output Hypothesis. Next, the chapter highlights the Socio-Cultural Theory (SCT) of mind, which explains the use of collaborative writing from a socio-cultural perspective.

Chapter 4 provides the empirical research pertinent to GBWI, L2 collaborative writing, and L2 writing improvement. The chapter offers an in-depth discussion of empirical research which has been previously conducted to investigate L2 written production. In this part, the chapter first addresses research which has examined the three most common measures of writing improvement: Complexity, Accuracy, and Fluency (CAF). This is followed by a discussion of research that has addresses lexical and syntactic complexities and the use of computational text analysis to investigate L2 writing improvement. Finally, the chapter discusses the focus of the present study, by highlighting the research gaps that this study attempted to address and the ways in which it may advance our current understanding of the potential effect of GBWI and collaborative writing.

Chapter 5 presents the study design and data collection methods. The chapter also addresses data analysis, through highlight of the procedures that were adopted to analyse data.

Furthermore, the methodology chapter offers a brief account of pilot study which was conducted prior to the main study so as to check effectiveness of research design and data

collection instruments. Finally, issues relevant to validity and reliability are highlighted, followed by a summary of the ethical considerations which were observed while carrying out the research project.

Chapter 6 provides the quantitative results of the study. The results were provided as per the dependent variables that were considered to investigate the effect of the instructional intervention. The chapter first presents the results for text Content, followed by text Organisation, and reduction of Narrativity. These measures investigated change at the discourse level; hence considering improvement at text macro-level. Subsequent sections present changes in lexical and syntactic complexity which were calculated by indices within Coh-Metrix. The results of lexical complexity as measured through increase in MTLD and decrease in Word concreteness are presented first, followed by results for Syntactic Complexity as measured by two Coh-Metrix indices: decrease in Syntactic Simplicity and Sentence Syntactic Similarity.

Chapter 7 presents the analysis of pair interaction. Audio-recorded dyadic interactions were transcribed and analysed to explore how learner collaboration and interaction could assist the participants in completing written tasks. The chapter first presents analysis of interactions in terms of the main writing phases in which texts were composed. The chapter then presents the types of episodes identified within dyadic interactions, followed by identification of the types of LREs. Analysis of LREs in terms of nature and resolution is presented next. Finally, the chapter provides analysis relevant to the patterns of interaction which pairs formed during interaction.

Chapter 8 offers a discussion of the study findings. The study findings are discussed in light of previous empirical research as well as relevant theoretical frameworks. The first section in the chapter discusses the findings in the measures of text Content, text Organisation, and

reduction of Narrativity. The second section offers a discussion of the results obtained by Coh-Metrix indices for the measures of lexical complexity and syntactic complexity. The third section discusses the role of learner collaboration in assisting learners to complete written tasks in terms of language related episodes (LREs).

Finally, Chapter 9 provides the conclusions drawn from the current research. The chapter highlights methodological and pedagogical contributions of the study. The chapter also addresses the limitations of the present research. Finally, the chapter offers suggestions for future research based on the study findings and limitations.

CHAPTER TWO

Genre theory and genre- based pedagogy approaches

2.0 Overview

This chapter sets the theoretical foundation for genre-based writing instruction. The chapter begins with a discussion of genre theory. This is then followed by a discussion of the major approaches to genre-based writing instruction, with a particular focus on Systemic Functional Linguistics approach. Next, a discussion of genre-based writing pedagogy is offered, in which advantages and limitations are highlighted. Finally, a brief summary of the chapter is presented to sum up the chapter's main discussions.

2.1 Genre theory: A paradigm shift

The term genre is not a novel one. It has been around for at least the past 2000 years (Knapp & Watkins, 2005). As a term, genre dates back to Aristotle's use of it to refer to a kind or form of literary text. Thus, in classic rhetoric studies of texts, genre is understood to refer to a system of text classification whereby texts are categorised based on regularities and conventions of content and form (Flowerdew, 2011). Texts were classified as sonnets or plays, for instance, in light of the similarities that those texts share in terms of their content, form, and writing regularities. However, the traditional understanding and application of genre was challenged and experienced a major paradigm shift (Johns, 2002) during the 1990s after linguists and composition theorists began to apply a socially-motivated understanding toward genre studies. As such, the study of genre in more recent literacy education shifted the focus from text classification only to more complex and rigorous analysis of texts with reference to involved contextual and social demands. Contemporary genre theorists have rejected the view that depicts genre as an approach which separates "form from content, product from process, or individual from society" (Devitt, 2008, p.5). Rather, they insist that

genre is a system whereby individuals accomplish goals in recurrent situations using language, by formulating meanings in reaction to complex social needs and practices (Hyland, 2004). This understanding of genre meant that genre should be treated “neither [as] a text type nor a situation, but rather [as] the functional relationship between a type of text and a type of situation” (Coe, 2002, p.197). As such, genre under the new paradigm is approached more from a pragmatic perspective, in which genres are conceived of as useful tools that help writers achieve goals and form or define relationships with readers in various social contexts.

On the other hand, socially-oriented genre studies emerged in reaction to the prevalent Process Approach to writing instruction (Hyland, 2003). The Process approach dominated writing instruction for over 30 years, where Process theorists borrowed theories and techniques from cognitive psychology to account for a purely formal study of text. Under the Process approach, writing is viewed as an individual endeavor with no account of social aspects involved in text creation. In contrast, genre theorists rejected this individualistic view toward writing, which they regarded counterintuitive with respect to how language evolves and is used in social settings. In response to the extreme interest from the part of writing researchers toward genre as a social process, Candlin (1993) describes genre as “a concept that has found its time” (p. ix), and one which has constituted a central focus in textual studies not only in Linguistics and SLA but as well in current cultural and social studies. The centrality of the genre concept stems from the premise that through genre people can forge relationships, join communities, and accomplish goals, and that individuals would not be able to tackle basic daily activities without the familiar patterns of structure that genres provide to social events (Hyland, 2004). This new shift necessitated viewing texts as exemplars of genres and learners as society members (Johns, 2009). Hyland (2004) describes the concept of genre as “an intuitively attractive concept” (p. 4). He argues that genre is compelling since

it is premised on the notion that writing as a practice is dependent on expectations. More particularly, Hyland remarks that members of a community should face little or no difficulty in recognizing similarities in texts which they often use and that their frequent interaction with familiar texts should aid them in reading, understanding, and writing similar texts with relative ease. He goes on to say that knowledge of previous texts can help writers anticipate what readers would expect from reading one's text, and at the same time assist readers in interpreting what the text's writer is attempting to say.

A socially-oriented approach toward genre provides a holistic view of the forces usually involved in creating a text (Johns, 1997). Adherents of genre assert that forms (genres) cannot be segregated from content. They refuse to treat genres as text types, for such treatment could result in viewing writing as a product and thus neglecting the processes involved. A view of genre as text type forces individual writers to reproduce "ready-made" textual templates that are imposed by society. Such a view of genre is rejected by genre researchers since it hinders learners from exercising individual creativity over text composition. Alternatively, genre theorists stress that the study of genre should consider textual forms as well as contexts and should simultaneously hold analysis and description of text more valuable above the mere taxonomy of texts (Devitt, 2008). In sum, recent understanding and application of genre as a holistic approach toward the study of text has enabled genre to become "a unified theory of writing" through which we can understand "how to unify form and content, place text within context, balance process and product, and acknowledge the role of both the individual and the social" (Devitt, 2006, p.84).

This being said, however, does not suggest that genre is a concept that can be defined straightforwardly. The concept of genre cannot sometimes be understood through a unified definition. This is partly because there are considerable differences among genre scholars who subscribe to different theoretical perspectives- whether understanding of genre is based

on theories of language and text structure (as is the case in Systemic Functional Linguistic genre approach and English for Specific Purposes) or whether they are grounded in social frameworks that prioritise social context (as in the case of New Rhetoric genre approach) (Johns, 2002, Hyon, 1996). Each genre perspective places different emphasis on text and context. However, all genre perspectives agree that writing should be approached from a social perspective by considering purpose, form, and social context.

Finally, across all three perspectives of genre, the L2 learners' ability to write and respond to texts effectively is considered pivotal to accomplishing literacy in English. Achieving such success requires L2 learners to possess genre knowledge, which is defined as "an individual's repertoire of situationally appropriate responses to recurrent situations" (Berkenkotter & Huckin, 2016, p. iii). This definition points out that in order for individual writers to gain membership into any social event, whether inside institutional contexts or beyond, writers need to be able to produce effectively the genres needed in those contexts. Genre knowledge develops as a result of repeated exposure to social events (Miller, 1994) and in turn through repeated production of genres in those events (Johns, 1997). Unlike the Process approach to writing, genre perspectives emphasise that learners may not share similar cultural values or understanding of why a particular genre is valued within a certain social situation. Thus, providing learners with the knowledge of the purpose and context in which a genre is produced is mandatory if teachers wish to achieve a successful learning of genres by learners. Genre knowledge is not limited to illuminating aspects of content, organisation, grammar, and vocabulary but also extends to include understanding of how genres are located in the wider culture. Generally, knowledge of a genre should include i) knowledge of the communicative purpose of genre; ii) knowledge of content and field, mode, and tenor; and iii) knowledge of the context where a genre is normally produced (Johns, 1997; Hyland, 2004).

2.2 Approaches to genre-based writing instruction

Teaching based on understandings of genre generally rests on the basis that effective text writing results from the writer's awareness of context and text readers. Knowledge that accumulates from writing texts in similar previous contexts can assist writers remarkably each time they attempt to start a new text. Yet student writers are still better equipped to write effective texts when they employ knowledge of previously written texts in addition to the ability to recognise text features. This section aims to provide a discussion on the major genre-based writing approaches to writing pedagogy. These are Systemic Functional Linguistics (SFL) or the Sydney School of genre, New Rhetoric (NR), and English for Specific Purposes (ESP). It should be noted that these genre orientations are overlapping (Johns, 2002). However, they differ in a number of ways such as the theoretical foundation each perspective subscribes to, the pedagogical context to which each perspective is normally applied, and the difference in prioritizing either text or context (Hyland, 2004).

2.2.1 Systemic Functional Linguistics (SFL)

The SFL genre approach, also known as the Sydney School, is based on Systemic Functional Linguistics by Michael Halliday (Halliday, 1994; Halliday & Hasan, 1989). The SFL approach is considered "the most clearly articulated and pedagogically successful of the three orientations" (Hyland, 2004, p. 25). SFL has contributed significantly to understandings of genre in terms of textual analysis and pedagogical practice. This approach provides the theoretical and pedagogical bases for the instructional intervention in the current study. Work within the SFL genre school built on Halliday's views of functional grammar and was later extended by theorists such as Martin (1992), Christie (1991), and Rothery (1996). Early work in SFL began in the 1980s with research focusing on pupils' writing in Australian schools. However, work within SFL was later extended in the 1990s to cover secondary-school

students as well as adults in the workplace and professional settings (Feez, 2002). Analysis of written texts revealed that different texts have distinctive regularities or patterns in terms of grammar, vocabulary, and cohesion. Because of these patterns, texts are structured into stages which support the overall purpose of genre. As such, texts, from SFL researchers' viewpoint, can be described not only by the functions they serve but also in terms of the grammatical, lexical, and organisational patterns that constitute them (Bawarshi &Reiff, 2010).

To Halliday, Linguistics provides a set of systems which assist language users to construct an endless variety of meanings within social contexts and thus Linguistics is viewed as a communication resource rather than a set of grammar rules. Halliday (1985) contributed significantly into illuminating the relationship between text and context. Through his functional model of language, Halliday proposes that context could be visualized through specific textual features that eventually serve social purposes (Knap & Watkins, 2005, Martin, 2009). This context visualization through textual resources could be illustrated through the following example, which is taken from Martin (2009, p.16). In [1], the child's question is more to do with time.

[1] *"A small child asked her father, 'Why aren't you with us?' And her father said: 'There are other children like you, a great many of them. . .' and then his voice trailed off"*.

By inserting modality (can), the interaction in [2] is now more to do with ability rather than time.

[2] *"A small child asked her father, 'Why can you with us?' And her father said: 'There are other children like you, a great many of them. . .' and then his voice trailed off"*.

We could still add more modality into the child's question so as to visualize or bring the outside world into the exchange. The second use of modality (had to) in [3] demonstrates a case of obligation with respect to the father's position:

[3] "A small child asked her father, 'Why can you with us?' And her father had to say: 'There are other children like you, a great many of them. . . ' and then his voice trailed off".

As such, the way language is organised in any given culture is because that particular organisation enables language users to achieve social purposes effectively. Systemic thus refers to language organisation or structures (genres) utilised to realise different purposes within social contexts. Functional, on the other hand, denotes the actions which language serves within social contexts (Bawarshi &Reiff, 2010).

Within the SFL approach, genre is conceptualised as "a staged, goal oriented social process" (Martin, 1992, p. 505). This view of genre puts emphasis on characterizing genres as tools for shaping and communicating meanings purposefully and interactively within social context. Genres are staged because meanings are constructed through multiple steps. In composing an argument, for instance, writers have to start with a thesis (stage one) then follow that with an argument or evidence to support their proposition (stage two). Genres are goal oriented since they serve to achieve practical or real goals, and they are social processes because individuals in cultural communities interact to achieve them.

Research within SFL has focused on the social purposes that are realised through genres and on providing a systematic description and analysis of the rhetorical structures that serve those social purposes. This is to say that texts that fall under the same genre should have a similar structure and serve a similar social purpose. For instance, essays, discussions, and interpretations are three types of text that serve the purpose of arguing. These texts should be written so as to argue and persuade the reader of a proposition through the use of evidence

and evaluation (Knapp & Watkins, 2005). Generally, the SFL approach provides a framework to address different types of texts that are written for different groups of readers in order to achieve different purposes (Yasuda, 2011).

SFL theoretical framework capitalizes on the relationship between text and the context of situation or the “immediate environment in which texts are produced” (Knapp & Watkins, 2005, p.18). Through context, a wide range of texts can be generated so as to verbalise that context. In this model, texts are connected to contexts at two levels: register and genre (Hyland, 2004). To Halliday, register denotes the conventionalised semantic features that are found in and shaped by the recurring types of social situations (Halliday, 1994). Creating a text demands language users to make choices within register which covers three major aspects: Field; Tenor, and Mode. Field refers to the general social activity in which language users interact, and it may also refer to the topic (or subject matter) of text. Tenor denotes the relationship between people who are involved in the social interaction. Finally, Mode is the medium of verbal expression utilised to realise meanings- either written or spoken language as well as the channel used- either phonic or graphic (Schleppegrell, 2004). These three dimensions of register correspond to what Halliday (1994) describes as the metafunctions of language: ideational, interpersonal, and textual. Thus, ideational highlights the linguistic representation of action in terms of who is doing the action or who receives that action, for instance, and hence corresponds with the aspect of Field. On the other hand, the interpersonal metafunction describes the interactions that take place linguistically between language users, such as when one language user asks a question, makes a statement or gives a command. Interpersonal also covers the relationships between language users (e.g., degree of formality) and the effect of their status on the interaction. Friends do not communicate with one another in the same way as when they interact with their superiors at work, for instance. Thus, interpersonal corresponds to Tenor. Finally, Textual highlights how information is delivered

and organised within and or between texts. This includes text organisation, the level of abstractness, the level of explicitness in terms of what should be mentioned as opposed to what is considered background information, and how texts are linked to each other in terms of cohesion and coherence. It also highlights textual complexity through focusing on aspects such as lexical density and grammatical complexity (Halliday, 1994). Thus, the Textual metafunction corresponds to Mode.

The second interaction between text and context occurs in terms of genre. Thus, after deciding on register choices, a student, for instance, will need to determine genre choices in terms of which structure or text organisation can best serve him/ her in order to communicate ideas to potential readers. This also includes whether she or he should deliver a text in order to report, discuss, or argue a particular situation or topic (Martin & Rose, 2008). This implies that register denotes the analysis of the linguistic variety found in a text as well as the situation in which language is used. Genre, on the other hand, denotes the analysis of conventional structures which are used to compose an entire text (Biber & Conrad, 2009). Interaction at the level of genre also implies that genres are culturally interweaved; meaning that individuals sometimes require more than a single type of genre in order to execute a particular social function. For instance, a sales consultant attempting to convince a potential buyer of a certain product would probably need first to (explain) its purpose, then (describe) the product's specifications and quality, and finally (argue with and convince) the customer of its value and significance.

Generally, the SFL genre approach has been committed to and encouraged by a focus on language education. Within SFL, Linguistics is seen as an effective tool which practioners can employ in the language classroom. This commitment to language and literacy enabled SFL theorists to provide a well-defined language teaching framework that caters for learners' linguistic needs at different stages (Hyland, 2007). Furthermore, because genre within SFL is

conceptualised within a linguistic perspective, genres are characterised along general rhetorical functions such as expositions, recounts, narratives, and descriptions. This characterisation of genre implies that genres denote groupings of texts within similar discursal patterns.

Genre pedagogy within SFL draws on Vygotsky's (1986) concept of Zone of Proximal Development (ZPD) which is the distance between what a learner can do independently and that which he or she needs assistance with from a more knowledgeable person (who is usually the teacher). Accordingly, the teacher's role in SFL genre pedagogy is crucial in scaffolding student writers' improvement. SFL genre instruction is delivered through a cycle teaching model that comprises different instructional stages. A teaching/learning model usually contains five stages as Figure 2.1 below illustrates.

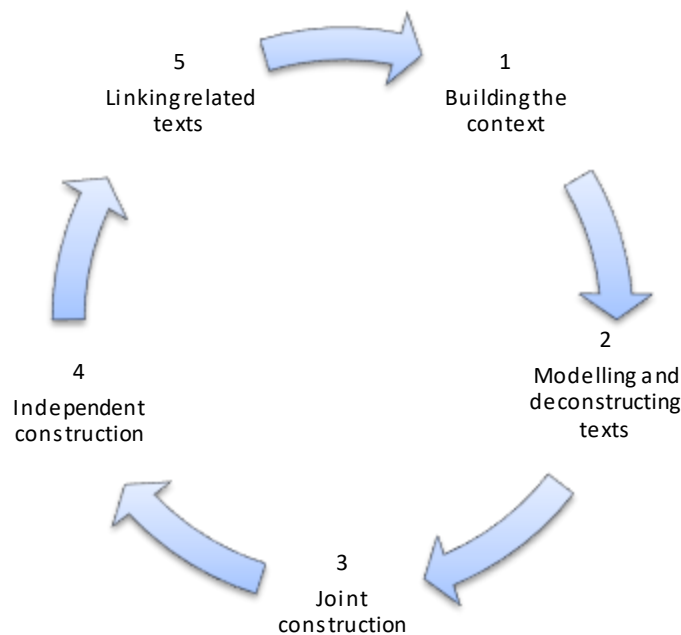


Figure 2.1 Genre teaching/ learning cycle (Adapted from Feez & Joyce, 1998)

As can be seen in the above diagram, the teacher begins genre instruction by building the context in order to illuminate the purpose of genre and the situations in which a particular

genre is normally found. This is done through activities such as brainstorming tasks, website visits, and prediction tasks. In the second stage, the teacher provides model texts for students in order to deconstruct them for rhetorical patterns which reveal the target genre's stages and their functions. This can be done by comparing texts in terms of text organisation and grammar that are typical of different genres. During the third stage, the teacher provides guided or controlled practice in producing the target genre by using activities such as role play, completion activities, and gap filling tasks. In the fourth stage, the teacher withdraws gradually so as to allow learners write their texts independently through employing writing processes (e.g. planning, drafting, editing) in real-like contexts. In the last stage, students compare the genre(s) they have studied to similar or different genres which they may occur in a similar context. By so doing, learners gradually learn to reflect and critique their own and others' texts. This can be achieved through activities which require learners to, for instance, compare changes in genres across various disciplines, audiences, and purposes (Martin & Rose, 2008).

Within SFL genre pedagogy, teachers are usually encouraged to teach explicitly genres- such as narration, exposition, argumentations, and explanation- in terms of the social purpose they serve and the social context or location in which they are usually created (Paltridge, 2001, 2002). For instance, the purpose of writing the exposition genre is to provide an argument for a specific thesis that is made by the writer. The exposition genre is usually found in essays and commentaries or editorials (Butt, et al., 2009). Classifying genres in this manner is useful to teachers as it can reveal the linguistic demands which different genres require in order to be produced effectively. The genre of exposition, for instance, is more demanding than the recount genre, since the former requires more complex lexicogrammatical choices. Thus, teachers within SFL are encouraged to teach genres with a gradual approach, starting with genres that are less demanding in terms of grammar, vocabulary and organisation and moving

up to more complex and challenging ones. Moreover, genres should be taught in light of learners' current level of proficiency; meaning that teachers should teach less demanding genres such as recount to beginner learners and teach more demanding genres such as exposition and argumentation to intermediate and advanced learners.

2.2.2 The New Rhetoric (NR)

The New Rhetoric (NR) approach to genre emerged in North America in the 1980s. Unlike SFL which draws on a linguistic framework, the NR approach draws on social and literary theories (Bakhtin, 1986) as well as L1 composition studies in North America (Freedman & Medway, 1994). Although both SFL and NR agree on the role of context and that genres are socially rooted, NR theorists differ from SFL theorists as the former build on Bakhtin's notion of dialogism. Dialogism revolves around the assertion that although genres are characterised with certain conventions, they are, however, much more flexible in comparison to flexibility allowed by SFL (Bakhtin, 1986). As such, genres within NR perspective are seen as more dynamic forms of social action that are "centred not on the substance or the form of the discourse but on the action [they are] used to accomplish" (Miller, 1994, p.24).

Unlike the SFL perspective, the NR school of genre is more interested in ideological and rhetorical study of genres and less interested in linguistic analyses of texts for instructional purposes. Instead, NR is more devoted to describing and analysing the social and cultural contexts in which genres are used through ethnographic analyses of the actions which these genres fulfill. By understanding such contexts, NR theorists argue, we can understand the various ways in which meanings are constructed and negotiated. Although textual conventions are not totally overlooked, they are nonetheless not the centre of attention but are seen as indication that people respond differently to recurrent situations in different cultural contexts (Hyland, 2004). Furthermore, since NR focuses principally on social and cultural

dynamics, NR researchers (e.g., Bawarshi, 2000; Coe, Lingard, & Teslenko, 2002; Devitt, 2008; Miller, 1994) are concerned with investigating the issue of power among genre users. Genre study within NR is more focused on experts' use of genre rather than novice learners. Additionally, NR theorists are skeptical of classroom-based genre instruction since they perceive genres as highly flexible rhetorical strategies which are used in real world to achieve real purposes instead of recurrent linguistic patterns that can be analysed in the artificial classroom environment. As such, they argue that because genres are dynamic and not static, they cannot thus be taught in the classroom (Coe, Lingard, & Teslenko, 2002).

2.2.3 English for Specific Purposes (ESP)

Scholars who belong to this genre school are interested primarily in applying genre as a tool for teaching and researching the range of writings which ESL and EFL learners normally need to produce in professional and academic settings (Bhatia, 2014; Flowerdew, 1993; Swales, 1990). The ability to write competently in professional contexts can determine ESL/EFL learners' future career success. Thus, ESP is concerned with how this group of learners develops meanings and structures while producing texts under genres that are valued in various professional and academic situations. Similar to SFL theorists, ESP researchers base their understanding and application of genre on linguistic grounds. Within ESP, genres are conceptualised as text types characterised by specific formal features and communicative purposes in social settings (Hyon, 1996). Swales (1990), whose work on "move analysis" was seminal in ESP genre analysis, defines genres as "communicative events" that have "communicative purposes" and are characterised by specific patterns of "structure, style, content, and intended audience" (p.58). While both SFL and EFL conceptualisation of genre is motivated by Linguistics, ESP researchers tend to devote greater attention to investigating professional and academic genres' formal properties than their functions or social contexts. Building on Swales (1990) pioneering work on structural move analysis, ESP researchers

have analysed texts in terms of their overall structural patterns. Examples of such analyses include Swales (1990) who analysed organisational moves employed in writing research articles; move analysis in master dissertations by Hopkins and Dudley-Evans (1988); medical abstracts by Salager-Meyer (1990) and analysis of business letters by Bhatia (1993).

ESP is a highly pragmatic approach of genre that is based primarily on addressing ESL/EFL learners' local needs. Unlike SFL theorists who see genres as rhetorical strategies to achieve goals, ESP adherents seek to examine the communicative needs of learners in professional settings specifically. Hence, ESP researchers are interested in specific routine practices of community members. Accordingly, genre is the property of those who use them in their closed communities (Hyland, 2004). Swales (1998) maintains that ESP understanding of genre allows individual writers to situate their needs through becoming members of professional groups. Such membership is thought to assist learners to understand the communicative needs of audience within a particular genre as well as the formal properties of texts produced in that genre.

Similar to SFL, the ESP genre approach is committed to language pedagogy. ESP researchers analyse genres used in real world in order to provide teachers and students with linguistic tools (such as move analysis) so that genre can be taught effectively explicitly in the classroom (Paltridge, 2001). Unlike SFL, the ESP genre approach employs an eclectic pedagogical approach by translating research findings into materials that can be used in L2 tertiary contexts (Swales & Feak, 2011). Furthermore, ESP genre pedagogy practitioners are increasingly concerned with providing genre-based writing pedagogy that offers L2 learners the opportunity to analyse a wide variety of "professional" genres through, for instance, comparing multiple texts from different genres and keeping mixed-genre portfolios (Johns, 1997).

2.3 Genre-based writing pedagogy

Essentially, writing pedagogy based on understandings of genre is concerned primarily with how learners act when they construct a text. Genre theory attempts to explain how individuals respond to communicative events (i.e., events that are normally found in daily communication between language users, such as describing, arguing, instructing, or narrating) and how this knowledge could be employed in language education (Hyland, 2003). This implies that understanding of the genre concept can very much assist writing teachers in selecting types of texts which will students need to produce in their future occupational and social contexts. As such, writing instructors should focus on texts that are relevant to what learners will need in order to function successfully once they are outside their classrooms (Hyland, 2004). Genre adherents postulate that genre pedagogies have the potential to assist writing instructors in delivering successful writing instruction that can assist learners to meet expectations. This is because genre as a concept allows teachers to perceive writing less traditionally- by not simply considering content or writing processes or even textual conventions. Rather, genre pedagogy empowers teachers and students alike to view writing as an opportunity to communicate with the reader purposefully, since writers often write to achieve an end within a particular social context. Responding to an actual event requires writers to adhere to relevant conventional ways in order to organise their messages. The power of genre pedagogy is that it allows teachers to analyse, describe, and explicitly teach writing conventions and by so doing, teachers can focus simultaneously on content and context (Hyland, 2007).

Although genre perspectives have originated in different circumstances, they have all, nonetheless, attracted the attention of L2 researchers and practitioners. This interest was based on the premise that through the concept of genre teachers and researchers can see how L2 learners employ various linguistic resources to take part in communicative situations and

that such knowledge can be utilised to teach learners to produce more effective texts (Hyland, 2004). Historically, genre pedagogies have evolved in reaction to process-oriented writing pedagogies and as a result of the communicative approach to language pedagogy (Hyland, 2003).

2.3.1 Strengths and limitations of genre-based writing instruction

The genre-based writing pedagogy has been received positively across various L2 instructional contexts. The genre approach to writing instruction has been utilised given its potential advantage in improving L2 learners' written proficiency. The overall advantages of genre-based teaching approach are as follows.

1. **Explicit:** Writing teaching within the genre-based approach is explicit with respect to the way target genres are structured and the reason why they are organised that particular way. Because L2 students may come from a very different cultural background, teachers should not depend confidently on their learners' knowledge concerning possessing the suitable cultural and linguistic competence which they need to construct texts effectively in English (Hyland, 2004). Thus, explicit, deductive instruction is inevitable to bridge the gap between what learners know and what they should understand to write effectively. Furthermore, overt instruction could establish a more useful learning/ teaching environment inside the classroom, since both teachers and learners are clear about what to focus on (Johns, 2002). Students are not left alone struggling to discover rules which may be beyond their capability especially those with limited linguistic proficiency. Similarly, teachers are not left undecided concerning their role in the classroom as it is the case in the Process approach. On the one hand, L2 teachers understand the need to intervene in order to provide instruction and feedback on forms early on during classroom instruction, unlike the practice in

the Process approach, where teachers are required to restrict their involvement to that of an observer or facilitator and postpone any explicit instruction until the final stages. In sum, delivering explicit writing instruction concerning “the ways in which patterns of language work for the shaping of meanings” (Christie, 1989, p. 45) is a source of empowerment for both learners and teachers who are conscious about which aspects of learning to concentrate on rather than a vague process instruction where both parties are uncertain of the focus of instruction.

2. Systematic: Unlike the product approach (which focuses exclusively on correctness of forms) or the process approach (which is particularly concerned with writing processes), the genre-based orientation to writing instruction places emphasis on both discursal as well as contextual features of language usage (Hyland, 2016; Paltridge, 2001). Genre-based pedagogy allows for establishing a link between text and context by focusing on the ways texts are organised and lexico-grammatical aspects (Johns, 2002). Linking text with context is also achieved by raising learners’ awareness of the impact of particular social purposes, audiences, and contexts on writing different genres. This is particularly useful for teachers as they can carefully select authentic teaching materials that help learners write with specific purposes and audiences in particular contexts rather than arbitrary assignment of materials based on their intuition of what should learners generally learn. Moreover, since genre pedagogy usually involves exposure to and analysis of exemplar texts, learners are instructed to perceive the effect of social relationships on the particular choices of lexis and grammar (Paltridge, 2004, 2013). Text analysis thus is not a mere reproduction of model texts, nor is it a decontextualised grammar or vocabulary drill. It is instead a systematic linkage between text and context which allows learners to be conscious of the effects of context on text production (Knapp & Watkins, 2005).

3. Needs-oriented: Content and organisation of instruction within genre-based writing pedagogy is tailored to learners' specific needs. This is done by delivering instruction that targets typical texts and text features which they will have to produce outside the classroom. In other words, the genre-oriented approach can potentially help in preparing learners to function successfully in their future workplaces, rather than simply providing them with general language practice that may not address their specific needs or worse fails to recognise their needs altogether (Hyland, 2004). For instance, science students would be instructed to analyse scientific texts such as lab reports and identify the prototypical features of this genre in terms of discoursal (i.e., content and organisation) as well as lexicogrammatical aspects (i.e., verb tense, sentence structure, technical vocabulary, etc.). On the other hand, students who major in Humanities such as History will be exposed to relevant texts (such as historical documents) which they will deal with in their future careers. Thus, serving learners' linguistic needs require teachers to be aware of those needs as well as attempting to possess knowledge of the various contexts and purposes under which learners will need to produce written texts (Johns, 1997). This can be done, for instance, through collaboration between language instructors and subject lecturers to discuss the genres and contexts in which learners will write their texts. Furthermore, learners are likely to be more motivated and successful as a result of seeing their needs met and clarified (Johns, 1997; Hyland, 2016). Writing may not be an easy skill to develop especially to L2 learners and unless learners are clear about why they need to improve their writing proficiency, they would probably lose interest and become less confident in their ability to write effectively. Finally, meeting learners' needs in genre-oriented writing instruction implies consideration of the various genres that are naturally interwoven. For instance, an instruction on writing exposition genre usually involves

practice in other genres such as note taking, Internet web search, and discussion of views with peers. Thus, knowledge and practice of these genres can facilitate appropriate sequencing of teaching materials and tasks (Paltridge, 2001).

4. Supportive: Genre-based writing pedagogy provides support for learners while gradually improving their written language proficiency. This is because genre-oriented pedagogies are based on Vygotsky's (1986) emphasis on the need for collaboration and interaction between teachers and their learners. The authoritative role maintained by the teacher is meant to provide scaffolding for learners who are gradually becoming more proficient and confident. The teacher's interference is greater during the initial stages which are related to modeling context and deconstructing exemplar texts and it becomes weaker as learners progress toward the later stages. This gradual involvement from the teacher is especially helpful to beginner and intermediate learners (Kay & Dudley-Evans, 1998) who probably need extra support at the beginning to become more confident, but it is equally important to more proficient learners especially when learning to write a new genre for the first time (Johns, 2002).
5. Empowering: Genre-based approaches are devoted to empowering L2 learners by assisting them in acquiring literacy skills which are appreciated in English speaking discourse communities. Since L2 learners usually lack sufficient knowledge of the typical patterns and varieties usually utilised in valued genres (e.g., academic essays; research articles), they often remain unable to access relevant discourse communities. However, genre approaches empower learners to gain access to and eventually successfully participate in genres that are valued in mainstream cultures and ones which are connected to their personal and career success (Johns, 2002; Hyland, 2004; Paltridge, 2001).

6. Consciousness-raising for teachers: Finally, genre-based pedagogies are useful to teachers as well as to students. Teachers who possess knowledge of the dynamics involved in producing various genres are conscious of the factors that affect and contribute to shaping different genres. Thus, they are better aware of their students' writing as well as of their own writing practice (Johns, 1997). Moreover, genre-based pedagogy equips teachers with the tools they need to become effective discourse analysts, since they need to approach language use as a communicative tool (Hyland, 2007). Before assigning particular genres, teachers will have to understand how texts are categorised in each genre, and what purpose such texts serve writers, as well as analysing the lexico-grammatical forms and structures that are typically found in each genre. Such reflective involvement with teaching materials can make teachers more critical about their own writing and as well their teaching practice (Hyland, 2004).

Despite the positive influence of genre-based approaches in promoting L2 learners writing skills at school level (e.g., Coffin, 2005; Veel, 2005) as well as university level (e.g., Johns, 2002, 2008), they have, however, been criticized for a number of reasons. Effectiveness of genre-based writing pedagogies has been questioned in particular by proponents of situated learning (e.g., Freedman, Adam, & Smart, 1994; Lave, 1996; Lave & Wenger, 1991), critical pedagogy (e.g., Benesch, 2001; Coe, Lingard, & Teslenko, 2002), and the Process approach (e.g., Kay & Dudley-Evans, 1998). Advocates of situated learning claim that genres are rather complex and diverse to be taught in the classroom away from their organic contexts.

Freedman et al. (1994), for instance, claim that it is the social aspect of genre specifically that cannot be taught explicitly in the classroom. As a result, genres should be learned only in real world contexts, such as professional occupational contexts (or communities of practice), where those genres need to be produced. To those advocates, classroom instruction cannot bridge the separation between situation of use and situation of learning and thus teachers can

only focus on school genres. While this argument may appear convincing with regard to L1 learners, it is, however, less cogent when it comes to learners in L2 contexts. This is because situated learning exponents appear to overlook the fact that L2 learners usually do not have access to natural situations where specific genres are produced in English. And even if they can access such original contexts, genre-based writing instruction is necessary to prepare them to assume an apprentice role in such situations and at the same time save considerable time and effort usually associated with natural genre acquisition. Furthermore, genre approaches have been critiqued by critical pedagogy advocates, who unlike situated learning proponents, agree that classroom-based genre instruction does grant learners access to valued genres in the English speaking world. However, they question the political advantage of such access to prevailing genres. They postulate that genre instruction cannot influence social relationships or power status and thus serves learners no advantage in becoming critical about the ways texts are written in different genres (Benesch, 2001). This may imply that what may appear as mastering a genre by a learner is actually the opposite, in that learners are merely effectively reproducing exemplar texts (Coe, Lingard, & Teslenko, 2002).

Finally, genre pedagogies have been attacked by supporters of the Process approach, who claim that genre teaching does not encourage individual learner's creativity and self-expression. Process exponents believe that explicit genre instruction inevitably leads to imposing formulas or templates that inhibit individual creativity, as learners should conform to such prescribed models. Kay and Duley-Evans (1998) revealed that teachers from various cultural backgrounds were concerned that genre instruction may impose prescriptivism in language classroom through the focus on the teaching of genres as linguistic templates. Although this concern may sometimes appear to be legitimate, it should be noted that what appears to be restrictive in genre teaching is due to the general patterns or genres which are typically used to achieving certain communicative goals and which learners should adhere to.

This, however, does not suggest that genre teaching forces learners to simply pour content into genre templates as proponents of the Process approach claim. Rather, learners are equipped with knowledge of the meaning making resources that enable them to make appropriate choices based on understanding of purpose, audience, and context.

2.4 Summary

This chapter has discussed the theoretical basis of genre. I first began by offering an overview of the genre theory, followed by a discussion on the three main genre perspectives: Systemic Functional Linguistics genre approach- the approach adopted by the current study, New Rhetoric genre approach, and English for Specific Purposes approach. This was followed by a discussion of genre-based writing pedagogy, addressing both its advantages and limitations. Overall, the genre theory and genre approaches have influenced L2 writing instruction significantly and have motivated immense research interest in various instructional contexts.

CHAPTER THREE

Cognitive and socio-cultural perspectives supporting the use of collaborative writing in L2 context

3.0 Overview

This chapter addresses the theoretical perspectives that provide support for the use of collaborative writing in L2 classroom. These perspectives have been adopted by previous research to investigate the effect of learner collaboration. The first section presents the cognitive perspectives; including the Input Hypothesis by Krashen (1981, 1982, 1985, 1989), Long's (1981, 1996) Interaction Hypothesis, the Noticing Hypothesis by Schmidt (1990, 2001), and Swain's (1985, 1993) Output Hypothesis. The second section focuses on the Socio-Cultural Theory (SCT) of mind. A brief summary of the discussed perspectives is presented at the end of the chapter.

3.1 Cognitive perspectives

3.1.1 The Input Hypothesis (IH)

The first cognitive perspective relevant to the current study is the Input Hypothesis (IH). Also known as the Monitor Model (Krashen, 1982), IH is considered one of the central hypotheses in SLA. The IH was developed by the linguist Stephan Krashen (1981) and was originally established as a single hypothesis, yet was later expanded to cover a set of five hypotheses (Krashen, 1982). The IH places a primary focus on comprehensible input which is seen at the root of any improvement in spoken or written language. Krashen (1989) maintains that more comprehensible input results in greater language acquisition. Learners who are more exposed to target language input are more likely to demonstrate higher proficiency (Krashen, 1982,

1985). I shall now briefly focus on each of the five hypotheses that comprise the IH. The first hypothesis is the Input hypothesis, which states that it is crucial for second language learners to be exposed to comprehensible input in order for them to acquire language and that input becomes comprehensible only if it contains elements that are slightly beyond learners' current level of proficiency ($i+1$). The (i) represents the learner's interlanguage, while the ($+1$) represents the next level of language proficiency. The input hypothesis postulates that since (i) represents linguistic as well as metalinguistic knowledge (i.e., knowledge gained through situation or learning context) which was acquired previously by the learner, learners hence progress from (i) to ($i+1$) by comprehending input that is found in ($i+1$). Moving to the next level of linguistic knowledge should be attainable for learners, since the ($+1$) is only a little beyond their present proficiency level. In other words, input should be provided in light of what learners are ready to acquire next, and failure to do so will result in failure to comprehend input from the part of the learner (Krashen, 1985, 1989). The second hypothesis is the Acquisition-Learning hypothesis. Krashen (1981) posits that language acquisition is never the same as language learning and that these two separate processes should be distinguished clearly. He theorizes that linguistic improvement is dependent upon acquisition rather than learning. This is because acquisition is a natural, subconscious process which individuals are generally unaware of and usually do not realize if they have acquired new knowledge. This subconscious mechanism of language acquisition, according to Krashen (1989), applies to children as well as adults who both need access to interaction in the target language. Interaction provides a platform through which the learner may focus on meaning rather than form. Learning, on the other hand, is a conscious process perceived as less effective than acquisition. Krashen (1982) maintains that language learning is usually associated with institutionalized language instruction through which learners do not actually learn language itself but are taught a model of language or a language form as in the case of

teaching grammar, for instance. The third hypothesis is called the Monitor hypothesis, which claims that language which is learned consciously may only serve to monitor language output but is not a source of spontaneous linguistic performance. This implies that only acquisition leads to automatic, effortless language use and that the learned language system can only assist learners in scanning for errors and making corrections after they have produced language. Thus, a successful use of the Monitor requires the learner to first know the forms or rules which will later be utilised to correct errors. Krashen (1982) also suggests that the Monitor works well when the learner is focused on correctness, which requires a focus on form rather than meaning. The use of the monitor requires the learner extra time to focus on form and thus has to slow down to decide the correct forms. The fourth hypothesis is labeled the Natural order hypothesis, which asserts that language is normally acquired according to a natural order that remains the same across learners and is not influenced by explicit language instruction. This hypothesis also maintains that acquisition of linguistic features is not affected by how easy or difficult an item might be. A simple feature such as the third person singular *s* is a straightforward rule, yet it is usually acquired in later stages of acquisition (Krashen & Terrell, 1983). Finally, the fifth hypothesis in the IH is the Affective filter hypothesis. Essentially, this hypothesis claims that the learner's emotions can potentially affect their ability to learn language. If the learner is under stress or anxiety, for instance, their learning is said to be impaired because negative emotions function as filters that reduce the amount of comprehensible input which the learner needs to acquire language (Krahen, 1982).

In the present study, comprehensible input is perceived of as a crucial source for L2 learning. Thus, students were provided with understandable input through a variety of ways. For instance, the teacher's involvement in the first three stages of genre Teaching/Learning Cycle (TLC) is meant to provide as many opportunities as possible for learners in order to have

access to meaningful comprehensible input. This could take the form of providing instructional tasks, clarifying new input, or providing feedback. Input is made comprehensible through gradual introduction of a new genre so as to ensure that input is within the learner's ability to learn. As such, the teacher introduces a new genre by establishing the context for using that particular genre. Furthermore, the use of model texts during the modelling stage is seen as an important source of comprehensible input which could potentially provide learners with input to acquire linguistic and discoursal knowledge necessary to learn a new genre.

Although the Input Hypothesis has gained prominence over the years, it is not, however, without criticism. First, although it is now widely agreed in SLA that comprehensible input plays a crucial role in language acquisition, it is nonetheless insufficient on its own. Learners need, as we shall see later, more than comprehensible input in order to develop their linguistic knowledge. Furthermore, the strict distinction between acquisition, which Krashen perceives as an unconscious process leading to fluent, native-like mastery of language, and leaning, which is a less effective process that helps learners in only monitoring their production, is not yet empirically proven. On the contrary, there has been some research-based evidence which has suggested otherwise (Schmidt, 2001). This being said, however, the IH continues to play a fundamental role in SLA, serving as the basis for a number of subsequent models of L2 language learning as we shall see next.

3.1.2 The Interaction Hypothesis

The second cognitive perspective relevant to the present study is the Interaction Hypothesis. Within the field of SLA, learner interaction has been considered, for a long time, crucial in language learning. In its simplest form, interaction refers to the conversations in which learners take part and may receive information about the correctness or incorrectness of their oral production (Gass & Mackey, 2007). Wagner-Gough and Hatch (1975) were among the

early researchers who suggested a role for conversation in SLA. Their work was followed by the seminal work of Long (1980), who identified structural differences in conversations led by native speakers (NS/NS) as opposed to those by non-native speakers (NNS/NS) or (NNS/NNS). After investigating the two types of conversation, Long (1983) found the latter type of conversation to contain a greater amount of interactional modifications which he perceived as useful to L2 acquisition (Long, 1985). Although Long (1981) believes that comprehensible input is necessary for language acquisition, he argues that it is not sufficient on its own and that negotiated interaction is critical for L2 acquisition. Long (1983) advanced a different method for making input comprehensible- through interactional moves or speech modifications. Speech modification occurs when learners and their interlocutors (whether native speakers (NS) or non-native speakers (NNS)) modify their input if they experience breakdowns in communication. These modifications are seen as sources of negative evidence (or corrections) as opposed to positive evidence in the form of perfectly- formed utterances (Mackey, 2007). Examples of interactional modifications include confirmation checks, comprehension checks, clarification requests, and recasts (Long, 1983). These types are exemplified below. Confirmation checks are aimed to check if one conversational partner correctly understands what the other partner is attempting to say. The following exchange, which is taken from data in the present study, demonstrates this type of interactional modifications.

Excerpt 4.1: Confirmation check

Fatma: people need to use smart phones for various reasons.

→*Ruqaya: various?*

Fatma: yes various.

Ruqaya: ok.

In Comprehension checks, one conversational partner suspects that the other partner has not fully understood what has been said and therefore carries a comprehension check to ensure if that was the case. Excerpt 4.2 provides an example of a dialogue between two learners in the present study, where one learner decided to check if her conversational partner understood what was said.

Excerpt 4.2: Comprehension check

→ *Aysha: I don't know this word meaning. What is mean?*

Zahra: profit?

Aysha: yes.

Zahra: it mean when you get more money from business.

Clarification requests are used when there is an apparent lack of comprehension and thus clarification is needed. Excerpt 4.3 provides an exchange, taken from the present study, which exemplifies a clarification request that was utilised to clarify the use of a new vocabulary.

Excerpt 4.3: Clarification request

Said: first we need to start with a hook.

Mohammed: uh?

→ *Said: you know hook, no?*

Mohammed: umm... I think.

Finally, Excerpt 4.4 gives an instance of a Recast. A recast refers to an exchange where an interlocutor rephrases an incorrect utterance with a target-like version, but at the same time keeps the integrity of the original meaning (Gass, 2003). The following exchange was taken from the current study, in which the teacher provided a corrected version of a student's utterance while keeping the original meaning intact.

Excerpt 4.4: Recast

Nasser: Where is he work?

→ *Teacher: Where does he work?*

Early research investigating the interactional structure of conversation (e.g., Gass & Varonis, 1989; Pica, 1988; Pica, Young, & Doughty, 1987) was primarily concerned with the role which interaction between NS/NNS or NNS/NNS may play in second language improvement. This line of research in addition to more recent interactionist studies (e.g., Ellis, Loewen, & Erlam, 2006; Loewen, 2005; Loewen & Philp, 2006; Leeman, 2003) were based on the assumption that conversational interaction is not simply a way for practicing linguistic aspects. Rather, it is a medium by which L2 learning could take place (Gass, 2003).

This understanding toward the role of interaction as a medium for language learning was emphasised in Long's (1996) revised version of the Interaction Hypothesis. Long (1996) placed more emphasis on establishing links between input and linguistic environment through the concept of negotiation for meaning (Mitchell, Myles, & Marsden, 2019). Negotiation for meaning is principally meant to serve "adjustments for linguistic form, conversational structure, message content, or all three" (Long, 1996, p.418). It is seen as facilitative of conditions to promote L2 language learning (Gass, 1997; Long, 1996; Oliver & Philp, 2014), since "it connects input, internal learner capacities, particularly selective attention, and output in productive ways" (Long, 1996, p.452). In the updated account of his hypothesis, Long observed that interaction can foster SLA in more ways than just through interactional modifications. Besides providing comprehensible input, Long (1996) argues that interaction as well provides learners with the opportunity to receive implicit negative feedback so as to test hypotheses and/or notice gaps in their interlanguage. Noticing-the-gap refers to the learner's ability to recognise the mismatch between what s/he is able to produce and the

target-like form that should be formulated, or what s/he formulates as compared to that which native speakers say (Mackey, 2006). The importance of implicit negative feedback is that it promotes opportunities for noticing-the-gap in learner's interlanguage, which in turn aids in connecting meaning, form, and use through focusing on input as well as output (Mackey, 2007).

It should be noted that learning may or may not take place immediately during interaction.

Thus, interaction is a potential site or a trigger for gradual learning (Gass, 1997).

Furthermore, the revised version of the Interaction Hypothesis also accounts for a focus-on-form advantage, which arises incidentally while learners are focusing on meaning (Long, 1991; Long & Robinson, 1998). Focus-on-form is defined by Long (1991) as the process which "overtly draws students' attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication" (p.45). Thus, focus-on-form is differentiated from focus-on-formS, as the former addresses linguistic elements highlighted within a communicative pedagogical context as opposed to a focus-on-formS practice, which addresses language exclusively as an isolated object of study with no context. In form-focused interaction, interlocutors may shift attention temporarily from message meaning to structural aspects so as to address grammatical accuracy of utterance. Thus, it can be assumed that negotiation, though focus-on-form, can potentially draw learners' attention to form-meaning relationships, a step that is crucial in L2 learning (Gass, 1997; Long, 1996; Pica, 1994).

A long line of interactionist research has investigated the extent to which learner-learner negotiation for meaning can promote L2 learning. Among the early experimental studies which provided evidence for the role of interaction in L2 acquisition were Varonis and Gass (1989) and Mackey (1999). The study by Mackey (1999) investigated acquisition of question forms by lower-intermediate learners. In this study, learners who negotiated meaning with NS

interlocutors were compared to learners who had no access to negotiated interaction. The study found statistically significant results showing that learners who had access to negotiation of meaning were one or more stages ahead in question formation as compared to the other group. Furthermore, a review of 28 experimental interactionist studies by Mackey and Goo (2007) as well as a review of 14 other studies by Keck et al. (2006) confirmed that L2 interaction can positively affect aspects of L2 learning such as lexis and syntax.

The relevance of the Interaction Hypothesis to the current study lies on the fact that pairs of learners in the Pair group were prompted to interact and negotiate meaning and form while completing written tasks. Such symmetrical negotiation of meaning (i.e., learner-learner interaction) is thought to provide a source of comprehensible input and could thus lead to potential L2 learning. Similarly, learners' asymmetrical interactions with the teacher in both Individual and Pair groups are crucially important for making input comprehensible through provision of positive or negative feedback (correction) from the part of the teacher, especially when focusing on form, meaning, or both. Both types of interaction can potentially help learners notice the gap in their interlanguage. Because interaction is assumed to facilitate noticing of L2 input, the next section highlights the Noticing Hypothesis in SLA.

3.1.3 The Noticing Hypothesis (NH)

This section explores the Noticing Hypothesis (NH), an influential cognitive perspective within interactionist research in SLA. Noticing is a term that has been applied to refer to language items that were formerly unknown by the learner. It is "the conscious attention paid to the input in order for input to become intake" (Ellis, 1994, p.361). NH was proposed by Schmidt (1990, 1994, 1995, 2001). The initial (strong) version of NH states that there is no learning without conscious attention (Schmidt, 1990). However, this position was challenged by different researchers. Gass (1997), for instance, countered this claim by asserting that some forms of learning does not depend on input and thus cannot be claimed that only

attended input could lead to learning. As such, Schmidt (2001) introduced a revised version of the hypothesis. The updated account of NH states that within the realm of SLA, L2 students are more likely to learn more from what they attend to, and that they would not be able to learn as much when attention is lacking (Schmidt, 2001, 2010). Schmidt (2001) thus does not eliminate the possibility of input becoming intake without conscious attention, but he emphasises that the presence of attention would increase the likelihood of learning. He thus asserts that implicit learning, which is a form of learning without attention to input, could take place as has been demonstrated by empirical research (e.g., Williams, 2004, 2005; Hama & Leow, 2010). Schmidt (2010) admits that the difference between awareness and attention is controversial- whether awareness is a prerequisite for learning or not. In an attempt to solve this problem, he distinguishes between noticing and understanding. Noticing is “a technical term limited to the conscious registration of attended specific instances of language” (p.725). Understanding, on the other hand, is “a higher level of awareness that includes generalisations across instances” (Schmidt, 2010, p.725). Thus, a learner’s knowledge of pedagogical rules falls under understanding and that noticing is important for SLA but understanding is only facilitative.

Schmidt (2001) observes that noticing is central in the acquisition of all L2 aspects, including phonology, lexis, grammar forms, and pragmatics. However, Schmidt (2001) contends that the attentional system is limited due to the mind’s incapability to fully process stimuli; because it is selective and thus attentional resources should be allocated strategically; and finally because it is subject to learner’s voluntary control.

Attention has been found to play a critical role in instruction. This is because L2 learners employ attention in comprehension of utterance’s form and meaning. VanPatten (1990), for instance, argues that noticing plays a role in the processing of an utterance’s content (meaning) as well as in the processing of its linguistic form. This implies that the likelihood

of the learner's comprehension of the linguistic form of an utterance is increased when the teacher can direct the learner's attention to that particular form (Tomlin & Villa, 1994).

Following the pioneering work of Schmidt (1990) on noticing, Tomlin and Villa (1994) proposed a model of attention which comprises three processes: alertness; orientation; and detection. They proposed that detection is critical for learning yet it does not require conscious awareness, and that the other two processes may facilitate the likelihood of detection and thus increase the chance for learning. Moreover, Robinson (1995) redefined the concept of noticing by proposing that noticing includes what a learner detects and then activates as a result of allocating attentional resources. He further proposed that the variability of task demands can trigger different types of information processing (Izumi, 2002).

3.1.3.1 Noticing and SLA

With respect to SLA, there have been some important contributions to the study of noticing since the pioneering work of Schmidt and Frota (1986). Due to such research, there has been a unanimous agreement among SLA researchers (e.g., Gass, 1988; Van Patten, 1994, 1996) that unless learners first attend to target items in the input, the acquisition of target features cannot progress. However, there are some who doubt that noticing alone can augment the likelihood of internalizing intake. Gass et al. (2003), for instance, assert that noticing of form on its own cannot help learners acquire new forms without formulating explicit rules about the noticed features. In contrast, other researchers (e.g., Leow, 1997, 2000; Rosa & Leow, 2004; Mackey, 2006) found evidence supporting the notion that noticing of target forms alone may increase learner intake and thus facilitates acquisition. Broadly speaking, within SLA research on noticing, there have been two distinct approaches that have been researched substantially. The first is called textual input enhancement, while the second is learner's output. Although both approaches are aimed to increase the learner's attention to target

features in input, they differ in the way each accomplishes this aim. To illustrate, while attention in the textual input promotion approach is prompted externally through highlight of target features, attention in the learner's output approach is induced internally, since only the learner can decide which aspects of his/her production are problematic (Izumi, 2002). The studies by Leow (1997, 2000), Mackey (2006), Mennim (2007), and Rosa and Leow (2004) exemplify research on textual or visual input promotion, while studies that considered learners' noticing of output include Izumi and Bigelow (2000) and Izumi, et al. (1999). Mackey (2006), for instance, provided evidence for a role of noticing in acquiring the formation of questions. Learners were able to internalise rules about the way questions were formed after noticing the target features in the input. Furthermore, learner individual differences in noticing were found to correlate with the amount of learning (Schmidt, 2010). Mackey, Philp, Egi, Fugii, and Tastumi (2002), for instance, found a relationship between individual differences in working memory and the noticing of recasts. Philp (2003), furthermore, reported proficiency level as one of the key factors that affected participants' ability to report accurate recall of recasts- a change that was considered as evidence of noticing in NS-NNS dyadic interactions.

Finally, there are multiple factors that can influence the learner's capability to notice linguistic features in input. Schmidt (2001) and Gass (1997) argue that the frequency and salience of features are two fundamental factors that may affect noticing. The likelihood of a certain linguistic feature to be noticed is influenced by how frequently that form is available. Also, salience of a form can determine how likely learners would recognise a form in input. For instance, the position of a word in a sentence as well as word stress can make it more salient than others and thus more likely to be noticed. Moreover, input mode is another important factor that can affect noticing. This factor was proposed by Leeser (2004) who

found that both written and spoken input forms have the potential to determine recognition of target features. Leiser concluded that writing – compared to speaking- provided learners more chances for recognition and comprehension of target forms.

3.1.4 The Output Hypothesis

The Output Hypothesis (OH) was proposed by Swain (1985). While she acknowledges the essential role of comprehensible input in SLA, Swain suggests that exposing learners to comprehensible input alone is not sufficient for language acquisition to occur. Alternatively, she proposes that pushing learners to produce language, both spoken and written, is crucial for facilitating language learning. Swain (1995) specifies three distinct ways in which output may foster the acquisition of language. First, Swain observes that the production of language provides learners with opportunities for useful practice, which in turn allows them to develop automaticity (fluency). Second, she points out that producing target features forces learners to process input at a deeper level. While semantic processing may be sufficient to understand an utterance through comprehension of single words in a conversation, producing language pushes learners to process input both semantically as well as syntactically and thus deploy deeper processing of linguistic resources. Dual processing of input permits learners to recognise items in their interlanguage which they may not know or perhaps know but only partially. To put it differently, pushing learners to produce language can potentially promote fluency as well as accuracy of their output. Third, Swain postulates that meaningful production of language could foster language learning through allowing for testing of learner hypotheses. When learners engage in producing language, they often examine certain ways of expressing their ideas while concurrently watch for clues from interactional partners to tell if these resources of expression really work. Testing of hypotheses is attained through receiving feedback from interlocutors, who may provide learners with responses that could contain

information about the comprehensibility of the learners' output. Based on the provided feedback, learners hence modify their production through increasing the comprehensibility and or accuracy of their output. Finally, testing of hypotheses and provision of feedback may be facilitated through teacher-led interaction or learner-learner collaboration.

As such, the Output Hypothesis is relevant to the current study as it provides the theoretical rationale for the significance of both types of interaction (i.e., teacher-led versus learner-learner interaction) in pushing learners to produce meaningful output while writing texts collaboratively. Asymmetrical interaction between the teacher and learners in the Individual group as well as symmetrical collaboration found among pairs in the Pair group both provide potential opportunities for learners to engage in language production that push them to process language at a deeper level. Collaborative dialogues (Dobao, 1994) formed by pairs of learners are especially important in pushing learners to process language at a syntactic level through discussions on writing full sentences while constructing texts. Such deeper language processing, which takes place more frequently during writing, is thought to promote higher accuracy of discourse as well as lexical and grammatical features (Adams, 2006; Adams & Ross-Feldman, 2008; Leiser, 2004; Niu, 2009).

At a later stage, Swain (2006, 2010) extended the OH to account for leaning as both a cognitive as well as communicative process. As a consequence, emphasis shifted from output to dialogue, which learners utilise to fix linguistic problems collectively. Collaborative dialogue was the term associated with dialogues that occur during a task that demands solving a problem. Such a dialogue was conceived of as a cognitive activity, in which more experienced individuals provide assistance to novice counterparts (Storch, 2018). In addition, Swain (2006) identified a process whereby learners can verbalise their thinking, which she labeled "linguaging". Linguaging is a key concept in Swain's hypothesis. It builds on

Vygotsky's cognitive model of learning which perceives language as a semiotic tool that mediates learning.

As far as the present study is concerned, collaborative dialogues formed by pairs of learners in the Pair group allowed participants to language about the problems they encountered while constructing their expository essays. Through pair work, participants had opportunities to negotiate discourse as well as linguistic problems. Pairs also exchanged feedback on one another's finished work. Such pooling of resources can potentially provide input for learners, which may later become intake. Pooling of resources through "languaging" is also crucial for learners in noticing-the-gap in their interlanguage.

A series of research by Swain and colleagues (Swain, 2005, 2006; Swain & Lapkin, 1998, 2002, Qi & Lapkin, 2001) has provided evidence for the role which "languaging" plays in promoting SLA. This evidence was in the form of language related episodes (LREs), which Swain and Lapkin (1998) define as "any part of a dialogue where the students talk about the language they are producing, question their language use, or correct themselves or others" (p.326). Subsequent research by Storch and colleagues (Storch, 2001, 2002, 2005, 2007, 2008, 2011; Storch & Aldosari, 2010, 2013; Wigglesworth & Storch, 2009) has investigated the role which writing collaboration and production of LREs play in SLA.

3.2 The Socio-Cultural Theory (SCT) of mind

Rationale for the use of collaborative writing in the present study is also explained through sociocultural theory of mind (SCT). SCT is a multi-faceted theory that aims to describe and clarify the ways in which persons' consciousness and capabilities can develop through culturally-mediated events, gadgets, and conceptions (Cumming, 2018). Over the past few decades, language theorists and researchers have progressively emphasised the social characteristics of human learning and development. The socio-cultural view of development

discards the premise that cognitive growth is created only inside individual persons' brains as a result of information processing, discounting at the same time the agency of social context (Alfred, 2002; Palincsar, 1998). Instead, SCT perceives the social environment in which people exist crucial to effecting cognitive development, which consequently implies that learning and improvement are inherently social processes constructed dialogically within and between persons in a given social context. This theory is largely influenced by the seminal work of Vygotsky (1978), who stressed the role which society and culture exercise in shaping the development of mind. SCT postulates that speech is integral to the improvement of cognitive functioning, and that mental improvement is mediated culturally and socially through artifacts and concepts (Ratner, 2002). Mediation is a key construct in the sociocultural view of learning. It denotes the notion that "all human knowledge, higher cognitive abilities, and activities are considered to be mediated culturally and historically by social practices for using symbolic and material tools" (Cumming, 2018, p. 76). This suggests that human cognitive development results from individuals' endeavor to utilise cultural artifacts, such as language, so as to appropriate their biological activity, and that such cognitive growth could occur as a result of participating, for instance, in cultural and historical settings among family and groups of friends. Vygotsky (1986) points out that learning is mediated first on a social plane and then on a psycholinguistic plane. He maintains that learning first commences at a social level when a child interacts with adults around him/her. Learning then takes place at a psycholinguistic level as the child works to internalize new knowledge. To better understand the construct of mediation, it would be helpful to liken the mediation process in the mind to the way people interact with the physical world. Often, we do not approach the physical world directly but instead utilise artifacts such as tools to interact with it. Suppose that one needs to travel from one city to another. S/he can of course walk between the two cities using their legs only. However, it would be more efficient and

less exhausting and time-consuming to use a horse or a bicycle, for instance. Still though, one would opt for a more efficient means of transportation by utilising a car. Thus, by using physical tools which are culturally developed, people become more empowered and better resourced than relying solely on natural endowments (Lantolf, Thorne, & Poehner, 2015). Similarly, cognitive improvement is mediated by semiotic tools and language is an important one of these tools. Words and sentences mediate as vehicles to convey ideas and concepts; hence it is through language that we "... mediate and regulate our relationships with others and with ourselves and thus change the nature of these relationships" (Lantolf, 2000, p.1). Furthermore, the Vygotskian account stresses that language plays a crucial role in the improvement of higher cognitive skills such as memory and learning. It also emphasises the role of social institutions and historical circumstances, as these can affect the improvement or inhibition of higher mental skills (Lantolf & Ahmed, 1989).

Moreover, language serves as a psychological tool that regulates objects, other people, and oneself during the transition from external social contexts to internal psychological domains. Lantolf and Thorne (2006) explain that regulation is one form of mediation. Learning language by children at an early stage works to transform their biological perception into a cultural conception. At an early stage, the way children think and act is usually subordinated by similar ways of thinking and action that are initiated by adults. This process of subordination upgrades the child's improvement of thinking, and through subordination children start to acquire the language of adults which eventually allows them to regulate their own behaviour. This implies that self-regulation is the final stage of improvement and is preceded by other stages. Lantolf and Thorne (2006) argue that for self-regulation to develop, it must go through three stages. The first stage is called object-regulation, during which children use objects to regulate their thinking. For instance, they use physical objects to

develop mathematical concepts such as addition and subtraction. The second stage is known as other-regulation. This is when children receive necessary assistance (scaffolding) from teachers, coaches, parents, peers, etc., so that they can advance their learning to a higher level. Scaffolding refers to adults' (or more experienced individuals) gradual withdrawal of support as a result of a child's (or a learner) growing mastery of a particular skill or task (Bruner, 1985). The final stage is self-regulation and at this stage learners become able to perform with minimal or no support from others. In other words, learners are now ready to internalize new knowledge independently. Internalisation is a core concept in SCT and an integral process in the formation of higher mental functions. It is a "process through which cultural artifacts, such as language, take on a psychological function" (Lantolf, Thorne, & Poehner, 2015, p. 211). It occurs when a child appropriates psychological functions that were initiated interpersonally. Vygotsky contends that for learning to move from a social or intermental level to an individual or intramental level (Lantolf, 2000), mentoring from and collaboration with more experienced adults or peers is inevitable.

Learning of a new genre in the present study, for instance, is enabled through the teacher's support for learners. The teacher is seen as the more experienced individual who can provide necessary assistance that would enable learners to improve their written competence. Finally, it should be noted here that mediation is not the same as learning, since exposure alone without internalisation cannot lead to improvement. Thus, improvement is a process that begins with the internalisation of psychological tools, which triggers restructuring of psychological functions, and ultimately leads to self-regulation (Negueruela, 2008).

Another important construct in SCT is Vygotsky's (1986) Zone of Proximal Development (ZPD). ZPD is a key theoretical construct that supports the potential of collaborative learning in L2 writing classes. According to Vygotsky, ZPD is a concept that explains the distance between what a learner is independently capable of and what he or she needs assistance with

from a more experienced person or peer so as to develop. Hence, the ZPD operates at two distinct levels: the actual level of fully acquired competence and the level of potential growth. The first level is self-regulation, which denotes anything that a child can do without external help, while the second level is labeled ZPD which includes activities that learners can perform successfully with others' assistance. Thus, anything that occurs beyond the ZPD level remains inaccessible to learners (Van Lier, 1996). Vygotsky postulates that interaction between learners, teachers, and peers can lead to the improvement of the ZPD (Vygotsky, 1986).

Though ZPD was originally conceptualised to account for child improvement, the term was further investigated by L1 and L2 researchers alike (Lantolf & Thorne, 2007). For instance, Donato (1994) and Lantolf and Appel (1994) employed ZPD to examine interaction processes found in L2 group work. The concept was also examined by L2 writing researchers (Di Camilla & Anton 1997; Villamil & De Guerrero 1996, 1998) to determine whether language learning in the L2 writing class could be promoted by activities that involve peer response.

Another significant construct in SCT is scaffolding. As noted above, scaffolding is construed as a process whereby adults provide effective guidance and assistance that eventually leads children to gain gradual control of a learning task. The potential of scaffolding lies in the premise that it allows learner to concentrate on areas which s/he has full control upon, while at the same time encourages him/her to receive assistance with aspects that are yet to be mastered. Successful scaffolding is characterised by the availability of three key features. The first is called contingency, which means that the teacher's support should match or be slightly above the learner's current level of proficiency. The second feature is fading, which stands for the gradual withdrawal of the teacher's support over time. The third feature is transfer of

responsibility, which highlights the learner's greater control of learning (Van de Pol et.al, 2010). However, scaffolding is not necessarily a unidirectional phenomenon (expert-novice) that starts with the expert adults or peers' support for the novice child or learner. Instead, as Donato (1994) and other L2 researchers (e.g., Storch, 2002, 2009) have argued, scaffolding can be a bidirectional process (expert- novice and novice-novice) in which learners support one another's learning through a process of "collective scaffolding". Collective scaffolding has been documented in a more recent study (Hanjani & Li, 2014), which found that learners working in pairs both benefited from revision tasks irrespective of their proficiency level. In the current study, pairs of learners in the Pair group are expected to benefit from collective scaffolding in addition to teacher's scaffolding. Through pooling of resources, pair work is thought to be potentially helpful in acquiring the expository genre more effectively.

To sum up, SCT plays a central role in L2 writing research, as Prior (2006) claims that "sociocultural theories represent the dominant paradigm for writing research today" (p. 45). Research into L2 writing has focused on applying and investigating relevance of SCT concepts to different L2 learning contexts (e.g, Lantolf & Thorne, 2006; Lantolf, James, & Poehner, 2015; Swain, Kinnear, & Steinman, 2011).

3.3 Summary

This chapter has highlighted the cognitive as well as sociocultural perspectives that lend support to the employment of collaborative writing in L2 context. The relevant cognitive frameworks included the Input Hypothesis- a fundamental perspective in L2 theory that has stimulated considerable research across various contexts and learner groups. The Interaction Hypothesis has generated even a greater attention and interest in L2 writing research and theory. Furthermore, the Noticing Hypothesis was discussed in the third part. Research has

shown the significance of attention in transferring input into intake, which in turn promotes L2 acquisition. The chapter also highlighted the relevance and significance of the Output Hypothesis, which states that learners learn best if they are pushed to produce language because only then they can process input more deeply at semantic as well as syntactic levels. The second section examined the role of the Socio-Cultural Theory (SCT) of mind and the significance of its main constructs (i.e., mediation, ZPD and scaffolding) in supporting collaborative learning in L2 classroom.

CHAPTER FOUR

Empirical research in GBWI,

L2 collaborative writing and L2 writing improvement

4.0 Overview

Over the past three decades, interest in genre-based writing pedagogy has generated a considerable body of research in numerous L1 and L2 instructional contexts. This interest has been partly motivated by the centrality of genre in writing pedagogy; as Tardy (2016) in her recent examination of genre innovation remarks: “[E]xcluding genres from the classroom is not really an option, as they are the primary means through which humans communicate in writing” (p.129). Hyland (2008) also asserts that genre is “one of the most important and influential concepts in literacy education” (p. 543). This chapter is intended to present representative empirical research relevant to the key areas of genre-based writing instruction, collaborative writing and L2 writing improvement. As such, the chapter is organised in three sections. It commences by highlighting research that has been done on the area of genre-based writing instruction. The second section provides empirical research in L2 collaborative writing, followed by L2 writing scholarship relevant to the specific aspects of writing improvement that were investigated in the present study at the word/ sentence and discourse levels. A brief summary of the chapter is presented at the end to summarise the reviewed studies.

4.1 Empirical research in genre-based writing instruction (GBWI)

There has been a growing interest in researching genre in various institutional contexts. Research in genre-based writing instruction has investigated classroom application of genre in different contexts, whether in language classes or disciplinary courses, and with learners at

different proficiency levels. These studies in general share a common belief that providing learners with explicit genre instruction can facilitate their understanding of genres' form, function, and the social contexts in which they are produced, which in turn facilitate learners' improvement of writing different types of texts (Hyland, 2003).

4.1.1 Classroom quasi-experimental studies in GBWI

Previous classroom-based empirical research has reported positive impact of genre-based writing pedagogy on improving learners writing proficiency in various L2 contexts (e.g., Ahn, 2012; Boettger, 2014; Byrnes, 2009; Byrnes et al., 2006; Chang & Schleppegrell, 2016; Cheng, 2006, 2007, 2008; Hyon, 2001, 2002; Johns, 2008; Kuiper et al., 2017; Mustafa, 1995; Paltridge, 2004; Tardy, 2006, 2009; Yasuda, 2011, 2015; Lo & Jeong, 2018). Tardy (2006) carried out a comparative review of 60 empirical studies that investigated how different learners, in terms of cultural background (L1 versus L2) (e.g., Reppen, 1995) and proficiency level (young learners (e.g., Kamberelies, 1999; Myhill, 2005); undergraduates (Freedman & Adam, 1996; Spack, 1997); graduates (e.g., Leki, 1995); and professionals (e.g., Flowerdew, 2000). Investigation of genre learning also examined whether learners learn genres in practice-based or instructional contexts. The author observes that classroom-based genre research has been comparatively smaller in size. Empirical research has also highlighted the factors which contribute to building genre awareness, such as encounter with different genres (Palmquist, 2005), intensive classroom-based writing practice (Johnstone, Ashbaugh, & Warfield, 2002), and repeated oral interaction and feedback with experts (Gentil, 2005; Parks, 2000; Tardy, 2005).

Furthermore, studies have reported a potentially supportive role for L2 explicit classroom-based instruction on learning different types of genre through the use of model texts (e.g.,

Pang, 2002). Use of model texts has been found to assist learners to analyse unfamiliar texts for context, purpose, and language (e.g., Johns, 2015; Yasuda, 2011).

L2 writing scholarship has suggested a positive impact of GBWI on acquiring genres in different EFL contexts. GBWI was found beneficial to Japanese university students (Yasuda, 2011, 2015) as well as Arab EFL learners (Mustafa, 1995). On the other hand, Hyon (2001, 2002), Cheng (2007), and Byrnes et al. (2006) provided empirical evidence supporting the notion that supplementing learners with explicit instruction on analysing multiple genres can sensitize learners to the differences among genres in terms of content, organisation, linguistic features, and purpose. With respect to the genre of arguing, for instance, explicit genre-based writing instruction has been found effective in relation to improving L2 learners' argumentative writing (Chang & Schleppegrell, 2016).

Research on the efficacy of GBWI has also been investigated in conjunction with other areas of writing. Mirzaii and Aliabadi (2013), for instance, examined the effect of GBWI in combination with written corrective feedback when writing job application letters. The results showed that explicit written feedback was more effective, in comparison to implicit feedback, in constructing the genre of application letter.

In a recent study which is somewhat similar to the present project, De Smedt and Van Keer (2018) reported a study that combined explicit genre instruction with collaborative writing. The study employed an experimental design in which learners in the experimental group were provided with an explicit strategy and genre writing instruction and were required to write collaboratively, while learners in the comparison group were provided with the exact same explicit instruction but were asked to write individually. The two intervention conditions were compared to a control group. The study revealed that the experimental group outperformed both the comparison group and control group. Although this study is similar to

the current research in terms of providing explicit genre instruction under two different intervention conditions (peer collaboration versus individual practice), it nonetheless differs from the present research as peers in De Smedt and Van Keer's (2018) study were required to produce single texts collaboratively which were later compared to texts written by individual participants in the comparison and control groups. The authors concluded that the effectiveness of the program depended largely on effective combination of peered writing and explicit instruction, which observed careful assignment of roles between tutors and learners.

The SFL genre-based writing approach has also been shown to be effective in teaching the expository essay genre to L2 learners in content and language integrated courses (e.g, Kuiper et al., 2017). Kuiper et al. (2017) reported a statistically significant growth in effective use of typical linguistic and genre features between pre- intervention and post- intervention assessment, after tertiary-level participants received SFL genre-based writing instruction embedded within subject teaching. The study generally indicated a positive effect of the GBWI in promoting teacher-learner scaffolding while learning to write within a subject course, which contributed to improving participants' overall writing proficiency.

Although previous research has provided empirical evidence supporting the positive impact of GBWI, recent research focusing specifically on the joint construction phase of the genre Teaching/Learning Cycle (TLC) has yielded mixed results with respect to the extent to which teacher/learners joint text construction is effective. L2 writing researchers working in different instructional contexts (e.g., Caplan & Farling, 2016; Hermansson et al., 2019) have empirically examined Rose and Martin's (2012) assertion which describes the joint construction pedagogy as "the most powerful classroom practice currently available as far as learning written genres is concerned" (p. 73). Hermansson et al. (2019), for instance, reported that teacher scaffolding during the joint construction phase did not significantly impact the quality or length of texts that were written by learners. However, Caplan and

Farling (2016) confirmed a positive effect of the joint construction stage after teaching university upper-intermediate ESL learners to write five-paragraph essays, as learners “appear to internalize language they have negotiated in the joint construction and transfer their learning to subsequent independent writing” (Caplan & Farling, 2016, p.564). These mixed results could be attributed to several factors such as proficiency level, learning environment, and learner's individual attributes such as motivation.

4.1.2 Classroom descriptive studies in GBWI

A smaller body of descriptive qualitative research has been conducted to investigate the characteristics of GBWI and other relevant aspects such as learners, instructional contexts, teaching materials, and pedagogical programs. Use of metacognitive tasks in GBWI has been found instrumental in improving graduate L2 learners’ genre knowledge and metacognition. Negretti and McGarth (2018), for instance, conducted a classroom case study investigation that involved 8 doctoral students who were enrolled in an ESP writing for science research course. The study aimed chiefly to examine the extent to which improvement of genre knowledge can be scaffolded through the use of metacognitive visualization tasks. Qualitative analysis of data revealed that the metacognitive tasks (visualization and reflection) were successful in pushing learners to integrate different aspects of their genre knowledge in their writing of science articles. The relevance of this study to the current research could be seen in light of the importance of using effective instructional techniques to scaffold learners in their acquisition of a new genre.

Furthermore, researchers investigating GBWI have combined different genre approaches in their investigation of the genre approach efficacy. Miller et al. (2016), for instance, used SFL in conjunction with the New Rhetorical (NR) genre approach to investigate the effects of source texts and prompts on undergraduate participants’ uptake of the argument genre in a

history class. The study involved coding analysis of argumentative essays that were written by 70 L2 participants. The study highlighted the separate and combined impact of source texts and prompts in facilitating L2 learners' uptake of the target genre. This study is relevant to the current research as it emphasises the importance of providing learners with appropriate source texts and specific task prompts in order to ascertain maximum genre uptake from the part of the learner.

Overall, the reported body of empirical research clearly demonstrates that researchers, in different instructional contexts, have been increasingly interested in investigating and exploring various aspects relevant to GBWI. Despite the fact that there has been a long line of research on genre pedagogy, researchers stress that there is still a need to investigate the potential of GBWI by extending instructional possibilities (Hyland, 2007; Polio, 2017; Tardy, 2006). The researchers have also called for employing different methods to measure the efficacy of genre instruction, so as to gain a deeper understanding of L2 writing change. Findings from previous research should be understood in light of the specific context that was investigated, sample size, and learner proficiency level as these factors could limit generalisation of results.

4.2 Empirical research in Collaborative Writing

With the advent of the communicative language approach, collaborative writing research has gained prominence in English language education. Theoretical sociocultural accounts (Vygotsky, 1986,) as well as empirical evidence (Dobao, 2012, 2014; Kuiken & Vedder, 2002; Storch, 2002, 2005, 2007; Swain, 2010; Yang, 2014) have justified the use of small groups in improving ESL writing. Empirical research has found the use of small groups more helpful in noticing L2 grammar forms (Kuiken & Vedder, 2002; Swain & Lapkin, 2002). Studies have also found that learners form distinct patterns when working in groups and that

certain patterns are more conducive to language learning (Storch, 2002). In addition, research has indicated that group work prompts learners to engage in cognitive processes that lead to improvement in their written output (Swain, 2010). Peer interaction in instructional contexts has been found to serve different purposes- to practice L2 use, to exchange information, and to form collaborative dialogues that help to attend to form (Philp & Tognini, 2009).

In its broadest form, collaborative writing is two or more learners working jointly to coauthor a single piece of writing. However, collaborative writing, as a form of collaborative learning, cannot help learners improve their writing skills unless learners share responsibility in terms of decision making and text production (Storch, 2013). Collaborative writing (CW) has been identified as beneficial to the improvement of written production in L2 classes.

Initially, it was thought that only expert adults can provide learners with scaffolding.

However, numerous research studies have found evidence that peers as well are capable of offering assistance to their fellow learners (e.g., Donato, 1994; Kim, 2008, Leiser, 2004; Shehadeh, 2011; Suzuki & Itagaki, 2007; Swain & Lapkin, 2001; Watanabe & Swain, 2008).

Studies of collaborative writing in L2 classes can be classified under two categories. The first category includes studies which investigate the cognitive processes that collaborative writing brings about as well as the factors such as task type and learner grouping which may affect these processes. The second category comprises studies that examine the effect of collaborative writing, either in comparison to individual writing or in terms of evidence of language learning ascribed to collaboration. In the next section, I shall focus on these categories of studies and discuss their outcomes.

4.2.1 Collaborative writing: Cognitive processes

It is argued that collaborative writing stimulates students to engage in a cognitive process called “*linguaging*”, which Swain defines as learners’ reflection on language use while

producing language (Swain, 2000). Studies focusing on “*linguaging*” examined the nature of *linguaging* and the factors affecting it. These factors were mainly task type and grouping of learners according to their L2 proficiency (Storch, 2011). Such studies (e.g.; Storch, 2001; Swain & Lapkin, 2001) assess the effect of learner interaction through Language-related episodes (LREs). LREs are segments found in the learners’ dialogue where they deliberate about or discuss their language production, question and/or correct one another’s use (Swain & Lapkin, 1995). LREs are categorized into grammatical form-related episodes (F-LRE); lexical- related episodes (L-LRE), and mechanics-related episodes (spelling, pronunciation, and punctuation) (M-LRE) (Swain & Lapkin, 1998).

In order to understand dyadic relationships in collaborative activities, Storch (2002) developed a model of dyadic interaction based on a longitudinal class-based study. The study examined relationships among 10 pairs of adult ESL learners over a semester. The study found four unique patterns of interaction based on the principles of equality and mutuality (where equality refers to authority over the task or activity and mutuality to the level of engagement with each other’s contribution): Collaborative; dominant/dominant; dominant/passive; and expert/novice. Collaborative dyadic interaction is featured with high levels of equality and mutuality. Collaborative pairs work jointly on all parts of the task and are willing to share and engage with one another’s views and suggestions. In the dominant/dominant pattern, there is usually high equality but low mutuality. This means that both learners are able to contribute to the task, but at the same time there is unwillingness or difficulty in accepting or working with each other’s contributions. The third pattern of interaction is labeled dominant/passive and it refers to a dyadic relationship that is featured by low equality as well as low mutuality. For this pattern, there is usually an authoritarian participant who is usually more proficient. The other learner is less proficient. The disparity in proficiency level usually prevents pairs from sharing, accepting, or even understanding one

another's input. The fourth pattern is called expert/novice; a pattern in which pairs maintain a low to moderate level of mutuality but a moderate to high equality. Unlike the case in the dominant/passive pattern of interaction, there is much more interaction between learners in this pattern, where one learner who assumes a higher control of the task encourages the less proficient counterpart to engage with the task. Of the four patterns, the study concluded that the collaborative and expert/novice patterns are more conducive to transfer of knowledge and thus learning among dyads.

Researchers in collaborative writing also investigated production and resolution of LREs (Storch & Wigglesworth, 2007) as well as quantity and quality of LREs (Leeser, 2004). Subsequent studies (Aldosari, 2008; Watanabe & Swain, 2007; Kim & McDonough, 2008) have confirmed Leeser's (2004) findings about the effects of task type and proficiency grouping on the quantity and quality of LREs. Watanabe and Swain (2007) also confirmed Storch's (2002a) assumption that collaborative pairs tend to produce more LREs compared to other patterns of interaction (i.e., dominant/dominant, dominant/passive). Aldosari (2008) concluded that meaning-focused tasks tend to produce more LREs and that collaboration was greater among learners of similar proficiency level, an outcome that confirmed Watanabe and Swain's (2007) findings.

Empirical research has also investigated the effect of proficiency pairing and task type on the amount of L1 that EFL learners use to complete a collaborative writing task in L2 (Storch & Aldosari, 2010). These results were emphasised in a subsequent study by the same researchers. Storch and Aldosari (2013) conducted an empirical study at a similar EFL context to understand how to optimize L2 learner pairing in heterogeneous classes. The study found that the aim of the task and the dyadic relationships between pairs should be prioritised over proficiency pairing when pairing learners in proficiency-mixed classes. Finally, Yang

(2014) found L1 background, L2 proficiency, and group rules (such as task division and assigning leadership) to be meditational means that may facilitate or constraint collaborative writing.

4.2.2 Outcomes of Collaborative Writing

This strand of studies examines the effects of collaborative writing in comparison to individual writing. Overall, research under this strand suggests that collaborative writing may lead to more accurate writing than individual writing (e.g., Li & Zhu, 2017; Wigglesworth & Storch, 2009).

Storch (2005) conducted a classroom-based study to compare between pair writing and individual writing. Students' texts were assessed using qualitative and quantitative measures. Analysis of data revealed that pair writing was generally shorter in length than individually written texts, but was more syntactically complex and accurate. Storch also found that texts produced collaboratively were more effective in terms of structure and focus.

In a larger-scale experiment, Wigglesworth and Storch (2009) compared texts that were produced by advanced ESL learners studying at an Australian university. The researchers compared texts written by 48 pairs to texts written by 48 individual learners. Quantitative measures were used to compare the texts produced by the two groups. The study concluded that no statistically significant differences were found between the texts written by pairs and individuals in the areas of complexity and fluency. However, the researchers found a significant difference, in favour of pairs, in terms of accuracy. The researchers associated these results with the fact that learners, during pair talk, focused on language use and provided one another with feedback. Collective scaffolding (Donato, 1994) was also seen as an additional factor that led to more accurate texts.

Researchers have also investigated whether collaborative writing can promote second language learning (e.g., Storch, 2008; Watanabe & Swain, 2007; Wigglesworth & Storch, 2012). For instance, Watanabe and Swain (2007) asked participants to write a text jointly. The co-constructed texts were used as pretests. The authors then reformulated the participants' coauthored texts and invited them to negotiate reformulated versions of their texts. After collective discussion of reformulated texts, the researchers asked the learners to write on the same topic individually. The assessment of the posttest focused on how correctly the learners incorporated reformulated items. The study found that collaborative writing resulted in language learning as was evidenced by retention of feedback.

The majority of research in collaborative writing has examined the benefits of collaboration by requiring learners to produce a single text collaboratively. Yet, there has been a limited body of research which examined the effect of collaborative writing through requiring pairs to produce texts individually after working in collaboration (e.g., Brook & Swain, 2009; Kim, 2008; Lapkin et al., 2002; Storch, 2008; Swain and Lapkin, 1998, 2002; Williams, 2001; Zeng and Takatsuka, 2009). However, these studies were different from the present study and thus outcomes of studies cannot be generalised. Unlike this study, these studies involved learners with mixed proficiency levels (e.g., Lapkin et al., 2002; Williams, 2001). Furthermore, the studies by Swain (1998, 2001) involved two French school learners only. The different context, learner population, and sample size all make the outcomes of Swain's research unhelpful to compare with tertiary EFL learners' performance in the current study. In addition, these studies (e.g., Kim, 2008) focused on learning of vocabulary only, through analysis of L-LREs. By contrast, this study provides a more comprehensive understanding of the role of collaboration by examining change in lexical as well as syntactic knowledge.

Finally, the study by Zeng and Takatsuka (2009) investigated the effect of collaboration in a computer-mediated context, which is different from the mode of collaboration in this study.

To sum up, previous empirical research that has examined the efficacy of collaborative writing in L2 contexts has generally yielded positive results, either with regard to stimulating cognitive processes such as languaging or assisting pairs to produce more effective writing in comparison to individually produced writing. This being said however, there is a dearth of classroom-based research that has targeted tertiary EFL learners and thus little is known about the role of CW in promoting the writing of this group of learners. The current study thus seeks to contribute to advancing our understanding of the role of CW in the specific context of EFL learners.

4.3 Empirical research in L2 writing improvement

Educational institutions, particularly at tertiary level, place a strong emphasis on improving students writing proficiency. As they progress into their university education, tertiary-level students are expected to develop increasingly grammatically and lexically complex written expression (Nesi & Gardner, 2012). Failure to attain effective writing skills can impair L2 students' academic success as well as future career path (Jenkins et al., 2004). This section provides representative empirical studies that have been conducted on L2 writing improvement at discourse, sentence, and word/phrase levels.

4.3.1 Complexity, Accuracy, and Fluency (CAF)

The constructs of complexity, accuracy, and fluency (CAF) have been extensively researched in SLA so as to explore learner linguistic performance in a measurable way. Research into CAF has investigated a variety of SLA issues such as the effect of instruction, L2

proficiency, task type, and writing quality (e.g., Armstrong, 2010; Biber & Gray, 2010; Housen, Kuiken, & Vedder, 2012; Norris & Ortega, 2009; Pallotti, 2009; Skehan, 2009). CAF research has yielded mixed results with regard to the impact of instruction and other factors such as task, proficiency level, and planning (Bulte & Housen, 2018). Furthermore, this type of research has been criticised because of the frequent separate investigation of the three concepts. Such treatment has been perceived as lacking in terms of providing an organic study of the learner's linguistic performance, which takes into account the ecological relationship between the three constructs (Norris & Ortega, 2009). Generally, the relationship among CAF is described within a trade-off framework; meaning that growth in one construct may temporarily inhibit or slow improvement in another construct-due to limited short-memory capacity- and thus simultaneous growth in CAF is unusual (Skehan, 2009).

4.3.2 L2 Lexical and Syntactic Complexity

A considerable body of research on L2 writing change has focused on linguistic aspects such as syntactic and lexical complexity. Operationalisation and conceptualisation of linguistic complexity has been traditionally based on Hunt's (1965) definition of T-unit (an independent clause and all its linked dependent clauses). An earlier attempt to highlight the significance of linguistic analysis of texts written by L2 learners was led by Wolfe-Quintero, Inagaki, and Kim (1998), whose research focused on examining measures of lexical and syntactic complexity, accuracy, and fluency. Other researchers have been interested in identifying the linguistic aspects and measures that distinguish effective writing. This type of research is built on the notion that writing performance can be judged based on examination of text linguistic properties (Hayes & Flower, 1980; Perfetti & McCutchen, 1987). Researchers concerned with exploring linguistic features have been primarily interested in identifying crucial aspects that represent or lead to construction of effective texts. For this

group of researchers, focusing on textual features is fundamental “because they are generally the most salient features that can be quantitatively measured” (Crossely et al., 2010, p. 6). A wide range of linguistic characteristics has been investigated, ranging from simple aspects such as the number of words found in a text, to more sophisticated measures such as intentionality and latent semantic relations (“Latent Semantic Analysis is a fully automatic mathematical/statistical technique for extracting and inferring relations of expected contextual usage of words in passages of discourse” (Landauer, Foltz, & Laham, 1998, p.8). Such assessment of textual characteristics allows researchers to establish links between linguistic features that constitute text quality, such as abstractness (Hillocks, 2002), sophistication (McNamara, et al., 2010), and cohesion (Halliday & Hasan, 2014).

There has been a proliferation of research on lexical and syntactic complexity in SLA in general (Housen & Kuiken, 2009) and L2 writing research in particular (e.g., Byrnes, Maxim, & Norris, 2010; Ortega, 2003; Polio, 2001; Polio & Shea, 2014; Staples & Reppen, 2016). Quite often, linguistic complexity is researched as a dependent variable in L2 writing research. Complexity is considered a valid and essential indicator of L2 performance and a descriptor of proficiency and linguistic growth (Bulte & Housen, 2017; Ortega, 2003).

However, despite immense interest in understanding L2 complexity, there is still no consensus on a particular definition or operationalization of the construct; a dilemma that has caused confusion and inconsistency in the application and interpretation of the term (Norris & Ortega, 2009). This is in part because complexity, as Norris and Ortega (2009) assert, is highly multifaceted by nature which covers a wide range of sub-constructs, dimensions, and components. Linguistic complexity has been defined as “the extent to which language produced in performing a task is elaborate and varied” (Ellis, 2003, p.140). It has also been described as “the range and the sophistication of grammatical resources exhibited in language

production” (Ortega, 2015, p.82). In an attempt to encapsulate this multidimensionality, Bulten and Housen (2012) developed a taxonomy of language complexity levels based on how they have been investigated in L2 research. In this taxonomic model, the basic categorization of complexity is defined in terms of absolute and relative complexity. This basic taxonomy is in line with Crystal’s (1997) definition of complexity, which describes it as referring to both language internal structure as well as the psychological difficulty associated with either using or learning linguistic items. Thus, absolute complexity is associated with the objective linguistic units and systems that are derived from linguistic theories, whereas relative (subjective) complexity derives from difficulty in language processing or learning which can be attributed to language users or variables relevant to them such as age or motivation. Syntactic complexity and lexical complexity in this study are understood to refer to absolute complexity, which derives from the objective properties of language.

Under absolute complexity, Bulte and Houston (2012) discuss linguistic complexity as one of the most researched types of complexity in L2 writing research. Linguistic complexity can be investigated at the level of the language system as a whole or at the level of single linguistic features such as structures, patterns and rules. Complexity of individual structures can further be investigated in terms of their formal and functional features. Finally, the study of complexity at various levels can be applied to the study of language in different domains such as lexical and syntactical levels.

L2 complexity in writing research has been operationalised in various ways- mostly through quantitative measures (Bulte & Houston, 2012). Operationalisation of complexity measures is usually based on five assumptions. The first assumption is related to the increase in the quantity of the linguistic unit being measured: the more the target linguistic item is available the more complexity there is (e.g., higher number of inflectional forms or grammatical derivations means higher complexity). The second assumption is related to the length of

linguistic units: greater length of linguistic items is equated with more complex language use (e.g., use of words, clauses or texts that are greater in length is taken to indicate higher complexity). The third assumption is linked to embeddedness, in which case the more deeply embedded linguistic unit is perceived to be more complex (e.g., greater use of subordination). The fourth assumption is related to the variety and diversity of linguistic items: greater use of more varied and diverse lexical and grammatical items is understood to index more complexity. The fifth assumption is principally linked to the infrequent and sophisticated use of language: “more marked, infrequent, sophisticated, semantically abstract, costly, cognitively difficult or later acquired features are more complex” (Bulte & Houston, 2014, p. 45).

Lexical complexity has received considerable attention, though smaller in size comparing to syntactic complexity, as a crucial measure of L2 proficiency and improvement. This is because vocabulary knowledge constitutes a fundamental part of a learner’s overall linguistic competence. Similar to syntactic complexity, a single definition for lexical complexity is still lacking. However, it is generally understood to refer to the size, depth, and accessibility of vocabulary knowledge (Meara, 2005). Typically, empirical research examining lexical complexity and its effect on L2 writing performance or L2 writing improvement has emphasised two aspects of lexical complexity. These are text internal measures as in the case of lexical diversity (proportion of unique words to all words in a text), as well as text external measures as in the example of lexical sophistication (frequency or infrequency of words in a text) (Johnson, 2017). Both lexical diversity and lexical sophistication have been positively related to L2 writing performance.

Linguistic improvement in L2 written texts has been investigated through numerous studies. Connor-Linton and Polio (2014) outlined a research project which aimed to investigate

writing improvement by ESL learners over the course of one academic semester. The researchers conducted five different research projects to investigate learners' written improvement and employed different measures in their analyses of texts written by L2 learners. The five analyses of the common corpus principally addressed accuracy, phrasal collocations, lexical complexity, syntactic complexity, and discourse variation. For instance, Bulte and Housen's study (2014) revealed positive instruction effect on learners' written performance as learners produced texts that were featured with augmented use of less frequent words and more complex syntactic structures (e.g., higher ratio of compound and complex sentences). In Crossley and McNamara (2014), on the other hand, post-intervention tests revealed that learners were able to write with a higher degree of sentence syntactic variety. This series of research also aimed at comparing the effectiveness of human analytic rating of L2 written texts in comparison to computational text analysis tools at detecting participants' written improvement. The participants in this project were enrolled in different language courses and roughly maintained a similar English proficiency. Participants were required to compose three 30-minute descriptive essays after choosing from a set of four essays, where each set contained two general topics. All topics were counterbalanced in order to control for topic difficulty. All five studies used a revised analytic rubric that was developed by Polio (2013) and Jacobs et al. (1981). The current study employed the same rubric for the measurement of content and organisation.

In a more recent study, Martínez (2018) examined differences in syntactic complexity found in texts written by L2 lower intermediate and intermediate students. Changes in syntactic complexity were examined at sentential, clausal, and phrasal levels. Complexification in the three levels of syntactic complexity was measured using similar quantitative measures that were reported in Bulte and Housen (2014), which were then compared to holistic ratings of essays obtained from the analytic rubric reported in Connor-Linton and Polio (2014).

Findings revealed that correlation between syntactic measures and overall writing quality and scores increased significantly for most syntactic complexity measures between lower intermediate and intermediate level learners, suggesting that growth in L2 syntactic complexity is influenced by learner's proficiency level.

4.3.3 Computational text analysis

Recent improvements in computational Linguistics ,discourse processing, and Natural Language Processing (NLP) have enabled researchers to investigate a wide array of complex features that contribute to learners' written text comprehension and overall quality. Such progress has contributed a richer and more reliable analysis of written discourse, since "these advances allow for the analysis of many surface and deep level factors of lexical sophistication, syntactic complexity, and text cohesion to be automated, affording accurate and detailed analyses of language to take place" (Crossley & McNamara, 2011, p. 174). An example of such advances has been evident in the increasing use of Coh-Metrix (Graesser, McNamara, Louwerse, & Cai, 2004; McNamara et al., 2014). Coh-Metrix measures text difficulty and cohesion by combining measurement of lexical items, syntactic pattern classifiers, part-of-speech taggers, and syntactic parsers based on Charniak (2000) (Jurafsky & Martin, 2008). Furthermore, Coh-Metrix provides a range of indices that measure lexical complexity such as indices that compute lexical sophistication in terms of word psycholinguistic features (e.g., word concreteness, imageability). Coh-Metrix also offers a number of measures of lexical diversity such as MTLD and vocd-D (McCarthy & Jarvis, 2010). In addition, Coh-Metrix offers indices that measure syntactic aspects of texts such as syntactic embeddedness (i.e., coordination and subordination) as well as syntactic variety. Texts featured with a higher use of syntactic embeddedness and variety usually illustrate higher syntactic complexity, which is a hallmark of advanced writers (Crossley et al., 2011).

Overall, Coh-Metrix has been employed to investigate numerous aspects of discourse such as differentiating text types and examining textual variances in L2 writing studies (e.g., Crossley, Louwrese, McCarthy, & McNamara, 2007). It has also been used to investigate L1 discourse properties (e.g., Louwrese, McCarthy, McNamara, & Graesser, 2004; McCarthy, Lewis, Duffy, & McNamara, 2006). Furthermore, multiple validation studies have been conducted to examine robustness of Coh-Metrix (e.g., Crossley, Greenfield, & McNamara, 2008; McNamara, Ozuru, Graesser, & Louwrese, 2006; Crossley et al., 2008, Crossley et al., 2009). Coh-Metrix has as well been employed to understand the aspects which influence human expert ratings of written texts (e.g., Crossley & McNamara, 2011). Generally, over 50 studies have empirically demonstrated that Coh-Metrix is capable of capturing subtle differences in text and discourse (McNamara et al., 2010).

Coh-Metrix has been used to explore learners' written performance. McNamara et al. (2010), for instance, utilised Coh-Metrix to distinguish between high quality and low quality essays written by undergraduate students. The study revealed that the most predictive indices of text quality were lexical diversity, syntactic complexity, and word frequency. High quality texts demonstrated greater use of syntactically complex sentences and infrequent vocabulary, and demonstrated greater lexical diversity. Further, the study found cohesion indices to be non-predictive of student text quality. This result was corroborated through a different study by Crossely and McNamara (2014), who indicated that the linguistic features which distinguished effective L2 essays from less effective ones were linked to linguistic complexity (such as increased use of nominalization, or the process of turning verbs into nouns, and phrasal complexity) rather than text cohesion. Additionally, more proficient essays were found to exhibit higher lexical diversity, greater use of infrequent words, and less repetition.

Crossely et al. (2014) employed two automated text analysis tools, Coh-Metrix and the Writing Assessment Tool, to investigate the ability of linguistic microfeatures linked to aspects such as complexity, cohesion, and rhetorical style to predict writing proficiency in L2 written texts. The computational analyses of texts were used to predict human rating of the written texts. Overall findings provided important information regarding the linguistic microfeatures that can predict L2 writing proficiency as well as information about the strengths and limitations of automated text analysis tools.

Mazgutova and Kormos (2015) examined the effect of non-explicit intensive writing instruction on lexical and syntactic properties of texts written by two groups of ESL college-level learners. The participants were invited to complete two argumentative essays- one prior to intervention and the other after the instructional intervention. Target structures were not taught explicitly. Measures of lexical and syntactic complexities were operationalised using two complementary approaches. The authors adopted measures of lexical (e.g., MTLTD; Academic word list) and syntactic complexity (e.g., mean length of T-unit; syntactic structure similarity) which have been utilised by previous researchers- in particular Bulte and Housen (2012) and Jarvis (2013). However, they also utilised measures that were motivated by research in SFL so as to address change in learners' written proficiency. In particular, the authors used syntactic measures that are associated with the academic genre (e.g., conditional clauses; prepositional clauses; and complex postmodifiers) in order to examine the extent to which learners' written texts reflected the grammatical choices of the argumentative genre. Texts written by participants were analysed using an analytic scoring rubric (Connor-Linton & Polio, 2014) as well as a number of computational analysis tools (i.e., Coh-Metrix 2.0; Coh-Metrix 3.0; Synlex L2 Syntactic Complexity Analyzer; Synlex Lexical Complexity Analyzer; and Vocab profiler BNC). Due to differences in L2 proficiency levels, the researchers identified four distinct patterns of lexical and syntactic improvement among the

two groups of learners. The less proficient group exhibited improvements in a greater number of areas as compared to the more proficient counterparts. Further, both groups showed growth in lexical complexity, but only the lower proficiency group demonstrated improvement in some measures of syntactic complexity- namely in the use of phrasal elaboration and subordination measures. Finally, the results indicated that learners deployed a limited number of syntactic structures as there was increase in syntactic structure similarity. This finding was in contrast to the hypothesis that intensive instruction would assist learners to increase sentence syntactic variability. Overall, the study contributes to the limited body of research that has illuminated L2 writing improvement through a combined investigation of lexical and syntactic complexities. However, generalizability of findings should be approached cautiously, given the low number of participants (39 participants in total) as well as the relatively advanced level of learners (IELTS 6-7) in this specific context.

4.4 The present study

In order to situate the present study and identify gaps in previous research, Table 4.1 summarises key findings of research in genre-based writing instruction (GBWI), collaborative writing, and L2 writing improvement.

Table 4.1 *Summary of previous research findings*

Main findings of GBWI research

- GBWI has generally been found effective in improving L2 writing in different contexts (classroom-based and practice-based) and with different L2 learners (pre-tertiary as well as tertiary-level learners).
- Classroom-based research is smaller in size comparing to laboratory studies.
- Use of model prototypical texts has been shown to positively impact learning of genre.

- GBWI can potentially help EFL learners acquire the argumentative and exposition genres.
- Although GBWI is generally helpful in improving L2 writing skills, there have been mixed results with respect to its effectiveness. This has been attributed to such factors as learner proficiency, and level of practice and experience with writing target genres.
- Many of the studies that targeted EFL learners focused mainly on investigating changes on discoursal features (e.g., content and organisation).

Main findings of collaborative writing research

- Use of small groups (including pair work) has been found more helpful in noticing L2 grammatical forms than individual practice.
- Learners form distinct patterns of interactions when engaging in collaborative writing.
- Collaborative writing push students to produce output; thus processing language at a deeper (syntactic) level.
- Collaborative writing is more likely to promote accuracy rather than fluency or complexity.
- Efficacy of collaborative writing has been investigated through analysis of LREs.
- Quantity and quality of LREs were influenced by learner proficiency level.
- Gains of collaborative work were usually measured by outcomes resulting from pair work.

Main findings in L2 writing improvement research

- CAF research has yielded mixed results with respect to the impact of instruction.
- CAF research has been criticised for lacking an organic study of learner written performance, due to frequently separate investigation of the three constructs (i.e., Complexity, Accuracy, Fluency).

- Changes within CAF research has been explained in light of a trade-off framework: as growth takes place within one construct, a concurrent decline happens in another construct.
- Previous research has yielded mixed results with respect to the role of L2 instruction on improving learners' lexical and syntactic complexity.
- Computational text analysis tools have been employed to distinguish learners' high quality texts from low quality ones after exposure to an intervention pedagogy.
- More proficient texts were computationally found to contain greater use of lexically diverse and sophisticated vocabulary, as well as more complex and varied syntactic structures.
- Learner proficiency level has been identified a key factor in distinguishing between high quality and low quality texts.
- Limited writing research has been published on the instructional effect on improving L2 first-year students' improvement of lexical and syntactic complexity.

This chapter has presented representative empirical research relevant to GBWI, collaborative writing, and L2 writing improvement. Research in GBWI has thus far illustrated the instructional advantage of the genre-based pedagogy in helping learners write more effectively in a range of genres that are important for their academic and career success. Mixed results, however, have been found despite the long positive reputation of GBWI. Research into collaborative writing, on the other hand, has yielded positive outcomes, though mixed results were also produced, regarding its potential as a strategy that contributes to the learning and improvement of L2 writing skills. With regard to instructed L2 writing improvement, previous research has suggested a role for L2 genre-based instruction, albeit the mixed results, on improving lexical and syntactic complexities. Given the mixed results

obtained from previous research and since few classroom-based studies have investigated combined improvement in L2 lexical and syntactic improvement, this study thus comes to address this research gap.

Thus, the purpose of the current study is to address the research gaps through investigating how EFL learners develop their writing proficiency and linguistic knowledge within the proposed instructional approach, by means of measuring changes at discoursal levels (i.e., content, organisation, narrativity) as well as linguistic levels (lexical complexity and syntactic complexity). Changes at both levels are measured using a traditional measure (analytic rubric for content and organisation) as well as through advanced computational software (i.e., Coh-Metrix for narrativity, lexical and syntactic complexity). Additionally, the current study addresses the way in which learner interaction during collaborative writing may assist in writing expository essays by focusing on analysis of dyadic interactions in terms of language related episodes (LREs).

4.5 Summary

This chapter has presented key empirical research relevant to L2 writing improvement.

Overall, L2 writing research has investigated a wide range of L2 writing features and factors which may influence improvement. However, L2 classroom-based research is still limited especially with respect to the effect of GBWI and collaborative writing in EFL contexts. The present study seeks to address the gaps in research relevant to GBWI and collaborative writing.

CHAPTER FIVE

Methodology

5.0 Overview

This chapter presents the research methodology and data collection methods that were employed during the treatment. The chapter first sets the purpose and research questions which guided the current investigation. This is followed by operationalisation of the measures which were adopted to gauge change over time. Next, I provide an account of the context and participants pertinent to the present study. I then describe the instruments which were used for the purpose of data collection. The fourth part provides the research design and data collection procedures, followed by data analysis processes. In the fifth section, I provide a discussion of the pilot study which was conducted prior to the main study. Issues associated with validity and reliability are discussed in the sixth part. Finally, the chapter offers a brief account of the key ethical considerations which were considered prior to and during the intervention.

5.1 Purpose of the study and research questions

The overall purpose of the study was to investigate the effects of genre-based writing pedagogy on the participants' changes in writing the expository essay genre when learners were instructed individually and in pairs. Furthermore, the study also sought to explore the role of learner collaboration in assisting learners to effectively complete written tasks through analysis of Language Related Episodes (LREs). Writing change was investigated at three levels using five variables as shown in Figure 5.1: text Content, text Organisation, reduction of levels of Narrativity, Lexical complexity, and Syntactic complexity.

Hyland (2004) and Tardy (2016) recommend that change in L2 genre writing should be investigated along different levels: word, sentence, and discourse levels. The rationale is that

by considering these three levels, analysis of L2 learner writing can be more comprehensive and thus provide a more informed understanding of writing change and instructional effect. This broader understanding toward L2 writing has been motivated by the mixed results yielded by research in CAF (Bulte & Housen, 2018). L2 writing scholarship investigating CAF has been criticised for the lack of offering an “organic” learner writing analysis that considers internal change at different levels (Norris & Ortega, 2009).

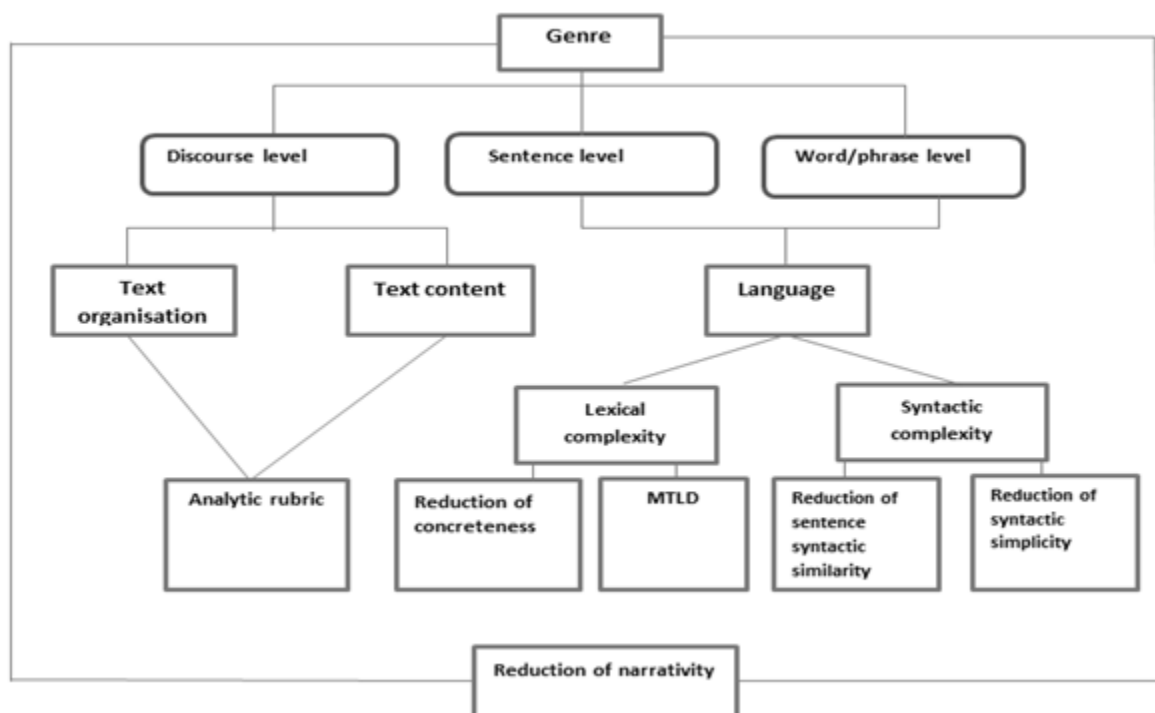


Figure 5.1 Measure of writing in the current study

As can be seen in Figure 5.1, change in genre writing was investigated at three levels: the discourse level, the sentence level, and the word/phrase level. Change in the discourse level was examined through text content and text organisation. Change in writing within these variables was measured using an analytic rubric (Connor-Linton & Polio, 2014). Change at the discourse level was also measured through reduction of narrativity using the index of Narrativity, which is a robust index within Co-Matrix that investigates genre differences through examination of linguistic features.

On the other hand, changes at the linguistic level were investigated along sentence and word levels, by considering change in lexical and syntactic complexity. The effect of genre instruction on lexical complexity was measured using two indices that were computed by Coh-Metrix: Measure of Text Lexical Diversity (MTLD) and reduction of word concreteness. MTLD measures lexical diversity, which is a key aspect of improvement in lexical complexity. Increase in MTLD signals improvement in lexical complexity. Reduction of word concreteness, on the other hand, is an index that computes the degree of word abstractness based on a database built within Coh-Metrix. Because expository essays are featured with a higher use of abstract language (than narrative writing, for instance), reduction in word concreteness indicates improvement in lexical complexity. These measures have been used repeatedly by previous researchers (e.g., Crossley & McNamara, 2014; Kormos, 2011; Mazgutova & Kormos, 2015; McCarthy & Jarvis, 2010) as valid measures of improvement in lexical complexity.

Change in syntactic complexity was measured by the use of two indices also computed by Coh-Metrix: reduction of syntactic simplicity and reduction of sentence syntactic similarity. The use of more complex and varied syntactic structures indicate growth in syntactic complexity, which is a key feature of effective essays (Bulte & Houston, 2012, 2014; Mazgutova & Kormos, 2015). These two measures have been employed by researcher (e.g., Crossley, et al., 2011; Crossley & McNamara, 2014; Mazgutova & Kormos, 2015; McNamara et al., 2010) to investigate change in L2 writing.

Finally, the study explored how learner interaction and collaboration may help learners improve their written skills of the expository essay genre through analysis of language related episodes (LREs) which pairs produced and negotiated during joint writing tasks. The research questions driving the present project are:

RQ 1: What is the effect of genre-based writing instruction on text Content, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 2: What is the effect of genre-based writing instruction on text Organisation, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 3: What is the effect of genre-based writing instruction on reduction of the levels of Narrativity, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 4 A: What is the effect of genre-based writing instruction on Lexical Complexity as measured by MTLT, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 4 B: What is the effect of the genre-based writing instruction on Lexical Complexity as measured by the reduction of word concreteness, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 5 A: What is the effect of genre-based writing instruction on Syntactic Complexity as measured by the reduction of syntactic simplicity, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

RQ 5 B: What is the effect of genre-based writing instruction on Syntactic Complexity as measured by the reduction of sentence syntactic similarity, when:

a) Learners are instructed to write individually

b) Learners are instructed to write in pairs

RQ 6: How does learner collaboration and interaction assist in completing the writing task?

5.2 Operationalization of measures

This section discusses the dependent variables which were chosen to assess the effect of the instructional treatment. A total of five variables (see Table 5.1) are operationalised in this section.

5.2.1 Text content

Text content in the current study is a variable that measures writing change at the discourse level. It was measured using a revised analytic rubric (Connor-Linton & Polio, 2014) that has been adopted in previous research (e.g., Connor-Linton & Poilo, 2014; Martínez, 2018; Mazgutova & Kormos, 2015). According to the rubric (see Appendix B), a well-written essay content should be featured with the following:

1. Thorough and logical improvement of thesis.
2. Substantive and detailed.
3. No irrelevant information
4. Interesting
5. A substantial number of words for amount of time given.

The above criteria set the parameters that define effective essay content. Notably, these criteria are based on the appropriate length and amount of detailing as well as relevance of information to be included. Appropriate essay content should thus not be too short or includes information that is not relevant to the topic of the essay. Furthermore, the criteria pay

attention to logical improvement of thesis statement. Appropriate length alone is not sufficient. Instead, a successful writing attempt should consider logical connections between ideas in the texts through focusing on relevant and interesting content.

5.2.2 Text organisation

Text organisation in this study addresses changes in expository essay's generic structure. Similar to text Content, text Organisation was assessed using the revised analytic rubric reported in Connor-Linton and Polio (2014). Effective improvement of text organisation is an integral part in the process of learning academic writing. The current rubric defined a well-organised essay in terms of the following criteria:

1. Excellent overall organisation
2. Clear thesis statement
3. Substantive introduction and conclusion
4. Excellent use of transition words
5. Excellent connections between paragraphs
6. Unity within every paragraph

It can be seen from the criteria above that effective essay structuring is operationalised through a number of aspects. The essay thesis statement should be stated and developed clearly. In other words, a student should clearly inform the reader how she or he will approach the topic argument. Furthermore, text organisation is also assessed through effective writing of the introduction and conclusion, which form two of the three main parts of an essay. Assessment of organisation also considers text cohesion and coherence, through assessment of effective use of transitional devices as well as unity and coherence between and within paragraphs.

5.2.3 Reduction of narrativity

Growth in writing the expository essay genre is marked by the reduction in the levels of narrativity. A text that yields a smaller percentage of narrativity marks written improvement. This variable determines the genre of the text category such as whether the text belongs to the narration, expository, persuasion, or informational genres. Within Coh-Metrix, the index of narrativity typically analyses the degree to which a text is written as a story, procedure, or a series of actions and events. A text that is high in narrativity tells a story and is filled with events, characters, familiar words and simpler syntactic structures (Graesser, McNamara, & Kulikowich, 2011; McNamara et al., 2014). Informational texts such as newspaper articles or argumentative essays lie at the opposite end of the continuum. They are featured with less common words, higher jargon, and more complex syntactic structures. Coh-Metrix provides, in percentile, computational analysis of narrativity (PCNARp). Narrativity is one of five indices within Coh-Metrix that measure text readability and easability (McNamara et al., 2014). A text that is high in narrativity is thought to be easier to read and comprehend. However, writing in academic settings expect learners, especially at college-level, to write on topics that are less narrative and thus involve less use of informal or spoken English as in the case of expository essays.

5.2.4 Lexical complexity

5.2.4.1 Measure of Text Lexical Diversity (MTLD)

Lexical diversity is understood to refer to “the range of different words used in a text, with a greater range indicating a higher diversity” (McCarthy & Jarvis, 2010, p.381). Lexical diversity in the current research was measured using MTLD, since it has been established as the least affected measure by text length (McCarthy & Jarvis, 2010). MTLD is unique in that it preserves the text’s structure while calculating TTR. It does so by breaking a text into

sequential parts with a similar TTR, thus minimising the effect of text length. Traditionally, Type-Token Ratio (TTR) has been the most common measure of lexical complexity in SLA research (Mazgutova & Kormos, 2015). TTR is the proportion of unique words (type) that can be found in a text to the total number of words (token) (McCarthy & Jarvis, 2010). This measure, however, has been criticized for its sensitivity to text length. To put it differently, the number of tokens increases as more words are added to the text; yet this increase in tokens gradually causes the proportion of types to decrease. To overcome this limitation, more robust measures that are not substantially affected by text length have been proposed, such as MTLT (McCarthy, 2005; McCarthy & Jarvis, 2007, 2010).

5.2.4.2 Reduction of word concreteness

Use of more abstract vocabulary and reduction of word concreteness is a measure of lexical sophistication- a critical aspect in the assessment of lexical complexity (Bulté & Housen, 2012; McNamara et al., 2014). Lexical sophistication was measured using an index within Coh-Metrix called word concreteness (WRDCNCc). Contemporary understandings of lexical proficiency are not restricted to the amount of vocabulary a learner knows, but is extended to cover psycholinguistic word knowledge. Such knowledge is linked to properties of words which influence processing and learnability of words. Examples of psychological word properties include imageability, familiarity, and concreteness (Crossley et al., 2010). The index of concreteness measures the level of abstractness of lexicon in a given text.

Computation of abstractness is based on the MRC psycholinguistic database, which provides ratings for over 4000 unique words. Words that represent concrete objects receive higher rating (e.g., *box* = 597), whereas more abstract words receive lower rating (e.g., *protocol* = 264). Thus, academic texts written by proficient learners are expected to receive low concreteness rating since they are usually featured with an increased use of abstract vocabulary (McNamara et al., 2014).

5.2.5 Syntactic complexity

For this study, syntactic complexity was measured via two indices which were computed by Coh-Metrix: reduction in syntactic simplicity and reduction in sentence syntactic similarity. These two measures examined embeddedness (as in the case of syntactic simplicity) and variety (as in the case of sentence syntactic similarity). The two features of embeddedness and variety are critical aspects of syntactic complexity as defined by Bulte and Housen (2012). It is expected that both measures of syntactic complexity decrease as learners develop their writing skills of the expository essay genre. The two measures are further discussed below.

5.2.5.1 Reduction of syntactic simplicity

Embeddedness was measured by the index syntactic simplicity (PCSYNp) within Coh-Metrix, which computes (in percentile) the extent to which sentences in a written text contain fewer words or use simple and familiar syntactic constructions. This index is one of the five measures of text easability and readability that Coh-Metrix uses to assess the degree of text difficulty (Graesser, et al., 2004; McNamara, et al., 2014). However, since improvement in academic writing is marked by increased use of complex syntactic structures that are highly embedded and longer in length, this measure is expected to decrease as learners improve their written performance.

5.2.5.2 Reduction of sentence syntactic similarity

This index calculates the proportion of structural similarity between adjacent sentences in a given text. The index (SYNSTUTa) was computed by Coh-Metrix. It calculates the consistency between syntactic structures through assessment of different parts of speech (Crossley & McNamara, 2009). It also computes the average parse tree similarity between

adjacent sentences (McNamara et al., 2014). Growth in academic writing is featured by use of varied syntactic structures (Crossley, Weston, McClain-Sullivan, & McNamara, 2011). Thus, a more effective essay should yield a decreased level of sentence similarity and manifests more varied syntactic structures.

Table 5.1 *Summary of measures*

Measure		Definition
Text content		Thorough and logical improvement of thesis, substantive and interesting.
Text organisation		Clear and substantive thesis improvement, unity between and within paragraphs. Effective use of cohesive devices.
Reduction of narrativity		Use of less common words, higher jargon, and more complex syntactic structures. Higher use of formal language.
Lexical complexity	MTLD	“The range of different words used in a text, with a greater range indicating a higher diversity” (McCarthy & Jarvis, 2010, p.381).
	Reduction of word concreteness	A measure of lexical sophistication calculated by Coh-Metrix. It measures the degree of word abstractness. Academic writing is featured by use of less concrete words.
Syntactic complexity	Reduction of syntactic simplicity	A measure of syntactic embeddedness. Shorter sentences with familiar structures are described as less complex. Longer sentences with less familiar structures are more complex.
	Reduction of syntactic similarity	A measure of syntactic variety that computes structural consistency between adjacent sentences by calculating the average parse tree similarity. A text with more varied syntactic structures mark improvement in syntactic complexity.

5.4 Research Design

The present study adopts a quasi-experimental (pre-test, immediate posttest, delayed posttest) non-equivalent control group design (Cohen et al., 2011). The current design is an example of a between-group design in which two experimental groups are compared to a control group. The quasi-experimental design is similar to the experimental design except for randomisation of participants (Mackey & Gass, 2015). Random assignment of participants is seldom feasible in most educational contexts (Dörnyei, 2007). Since the current study is

interested in identifying the impact of an instructional intervention on the changes in learners' writing proficiency, undertaking a quasi-experimental study is an appropriate research design to address the study research questions. This design is appropriate in terms of measuring and quantifying the effect of an instructional approach (Manchón, 2018). It is also appropriate for identifying the role which collaboration may play in improving the learners' writing skill, by observing learners while collaborating in a natural learning setting.

However, quasi-experimental design has its strengths as well as disadvantages. Its advantage is that it has ecological validity. Ecological validity concerns investigating a situation in its natural context while it is taking place (Cohen et al, 2011). Consequently, external validity should not be a concern, according to Dörnyei (2007), since investigation under this type of research takes place in authentic learning settings utilizing genuine whole classes. On the other hand, the disadvantage of this design is that it is considered inferior to the true-experimental design in identifying causality, due to the lack of random assignment of participants (Mackey & Gass, 2015). In other words, quasi-experimental designs have less internal validity than true experimental designs.

As for the current study, three classes were chosen in their entirety and were randomly assigned to two experimental conditions (individual versus pair) and one control group. The Individual group was comprised of 21 students, while there were 20 participants in the Pair group. The Control group was slightly larger as it involved 22 learners. Thus, the total number of participants was 63. The three groups were considered equal in terms of proficiency level, age, and number of years of English education.

Prior to the treatment, all three groups were administered a paper Oxford Placement Test (OPT) ([http:// www. oxfordenglishtesting.com/](http://www.oxfordenglishtesting.com/)) so as to place the learners at the start of intervention. Students then were administered a pretest so as to ensure that participants had a

similar proficiency level before the intervention. The intervention groups then received instruction in genre-based writing, where both groups were instructed to produce the expository essay genre. However, learners in the Individual group were instructed to compose their texts individually; whereas participants in the Pair group were instructed to write collaboratively in pairs. Following the end of the treatment, participants in both experimental groups as well as the Control group were administered a post test. Finally, all participants received a delayed posttest two weeks following the immediate posttest in order to ensure if the effect of the treatment was sustained. Ideally, learners could have been allowed a longer period of time before completing the delayed posttest. However, it was not feasible to expand the gap between the posttest and delayed posttest due to logistical constraints relevant to the research context. Figure 5.2 represents the study design diagrammatically.

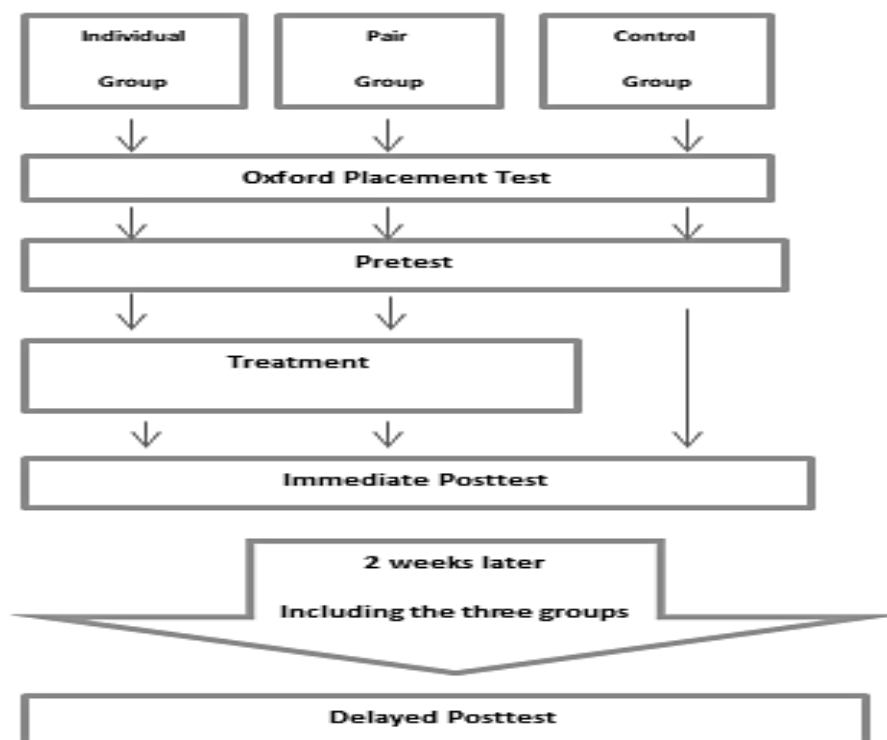


Figure 5.2 Study research design

5.5 Study Context and Participants

5.5.1: Context

The present project took place at a small public college of about 1500 students, located in a city in the sultanate of Oman. The current college offers a Bachelor's Degree in a number of specialisations, namely International Business Administration, Design, and Communication Studies (MOHE, 2014). English language is the medium of instruction and assessment across all disciplines at the present research site. Passing a General Foundation Programme (GFP) is a prerequisite for entering the degree programmes mentioned above.

The GFP is a pre-session course comprised of four levels (each level is one academic semester long) and is aimed to develop newly enrolled college students' academic skills with regard to English language, study skills, and computer literacy (OAAA, 2009). The majority of freshmen undertake the GFP, since their English language proficiency is not up to the specified standard. Within this programme, English language serves as a general language requirement aimed to support EFL learners' improvement of English academic skills in the four main areas of reading, writing, listening, and speaking.

The curriculum followed in the current research context places emphasis on the integration of the four language skills: reading, writing, listening, and speaking. Teachers are required to use textbooks that are prescribed by curriculum designers so as to ensure pedagogical consistency in the coverage of the four skills. However, there are courses dedicated solely for writing and are offered to all learners in the GFP (Table 5.2). The writing courses are meant to supplement core courses but they are not assessed. Nevertheless, attendance is mandatory and forms a substantial part of overall attendance requirement in the core courses. For the present study, the supplementary writing course was chosen to be the site for the instructional intervention, given its flexibility in terms of assessment and workload.

Table 5.2 *Type of courses offered in General Foundation Programme (GFP).*

Type of course	Levels	No. of teaching hours/ week
Core (Four skills integrated)	A (Intermediate, IELTS 4.0)	10
	B (Pre-intermediate, IELTS 3.5)	10
	C (Elementary, IELTS 3.0)	10
	D (Beginner, IELTS 2.5 or below)	10
Supplementary (Writing only)	A (Intermediate, IELTS 4.0)	4
	B (Pre-intermediate, IELTS 3.5)	4
	C (Elementary, IELTS 3.0)	4
	D (Beginner, IELTS 2.5 or below)	4

Table 5.2 shows the distribution of teaching hours per week across each type of language courses in the GFP. Generally, learners are offered 14 hours of English language instruction per week, with 4 hours focusing on writing skills exclusively. As the table illustrates, the two types of language course are mandatory to all foundation students across the four levels of proficiency. Learners must attend a two-hour class every day of the week (10 hours in total) in the General English (Core) courses and twice a week in the supplementary courses (4 hours in total). Generally, the Core courses offer general language practice in the four skills. The writing courses, on the other hand, provide learners practice in writing, by focusing mainly on activities that promote writing grammatically correct sentences. Each course type is instructed by a different instructor; however, in rare occasions the same instructor is involved in the delivery of both types of course. Thus, learners in the intervention groups as well as the control group (Intermediate level) equally had a total of 14 hours of English instruction per week.

Teachers at the current research site tend to follow mainly a Product-Oriented approach to writing pedagogy, where learners are asked to read a model text followed by production of a similar text. Correctness of grammar and vocabulary is emphasised and learners usually produce a single draft. Nonetheless, some teachers may adopt a mixture of a Product and

Process approach in which learners are instructed to go through the processes of writing such as brainstorming, outlining, and editing. Yet again learners seldom produce multiple drafts of their writing. The absence of consistency in the type of instructional approach might be explained in light of the fact that instructors in the current context are not provided with clear instructions as which approach should be adopted for the teaching of writing. Additionally, teachers are considered professionals who should be given the freedom to tailor their pedagogical approach to the needs and preferences of their individual classes and thus a strictly prescribed approach could sometimes be seen counterproductive. As regards teaching materials, instructors mainly follow a course book prescribed by curriculum writers. However, they usually use supplementary materials through using their own teaching materials or activities from educational websites. In both types of language course, teachers encourage learners to study in pairs or small groups. However, students rarely produce a single piece of writing collaboratively. Instead, they work in pairs or small groups while preparing (brainstorming and outlining) and sometimes when they check their writing after they have finished. Although teachers sometimes allow students to interact collaboratively during the lesson while completing communicative tasks, they mostly tend to dominate the class during explanation and thus creating a teacher-fronted environment.

It should be emphasised that genre-based writing instruction is not common in this specific context. Although learners may be given opportunities to produce expository texts, teachers seldom train learners to deconstruct prototypical texts through focus on typical lexicogrammatical and discourse features.

5.5.2 Participants

The participants (N=63) in the present study were intermediate-level (IELTS 4.0) freshmen enrolled in a pre-sessional course at a public college in Oman. Prior to enrollment, students at

the present College must undertake a placement test so as to be streamed into respective levels of English proficiency. Based on the placement test results, learners were streamed into four levels, namely Beginner (equivalent of IELTS 2.5 or below), Elementary (equivalent of IELTS 3.0), Pre-intermediate (IELTS 3.5) and Intermediate (IELTS 4.0) (<http://cas.edu.om/Pages/Academic-Programs>). Unfortunately, the participants' placement test scores could not be obtained. To verify learners' proficiency level, they were administered an OPT. The three groups took the grammar part of the test, which contained 100 items. Each correct answer was awarded one mark. The results revealed that the samples' average proficiency level was ($M= 60.73, SD= 2.90$). Descriptive data for the three groups were as follows: Individual ($M= 60.20, SD= 1.06$); Pair ($M= 61.20, SD= 3.32$); Control ($M= 60.78, SD= 4.31$). One-way ANOVA revealed that the three groups were at the same level as there was no significant difference between them, $F(2, 60) = 2.15, p= .125$.

All participants were Omani, L1 Arabic speakers who ranged in age between 18 and 19 and had had an average of 10 years of English instruction at school. Overall, the participants were 40 females and 23 males, with 21 participants in the Individual group, 20 in the Pair group, and 22 in the Control group. These learners had been exposed to paragraph and short essay writing instruction prior to intervention.

The rationale for selecting this group of learners is twofold. First, because the study is concerned with investigation of the effect of genre approach on the improvement of the learners' L2 writing proficiency, intermediate-level learners are considered more suitable for this end than less proficient ones. Hyland (2003) asserts that due to the learner-centeredness associated with L2 genre-writing pedagogy; only adequately proficient learners would be able to develop their writing skills through a series of negotiations and discussions with fellow learners and the teacher. Second, since collaboration forms a focal interest in the present study, learners' proficiency level is of relevance. Although mixed results have been

reported (e.g., Leeser, 2004; Watanabe, 2008; Watanabe & Swain, 2007) with respect to the influence of proficiency level on the effectiveness of writing collaboration, learner's level of English proficiency is still key to the success and effectiveness of joint writing. Research has shown that where disparity in language proficiency is too high, the collaborative writing experience tends to be less effective (e.g., Storch, 2002a). Thus, it was important to have participants who were approximately the same level.

The sample for the present study involved three intact classes selected in their entirety through non-probability convenience sampling (Dörnyei, 2007; Mackey & Gass, 2015). Such a procedure is also called availability sampling, as participants are selected for convenience. According to Dörnyei (2007), this sampling strategy is the most common in L2 research. Moreover, such sampling technique provides ecological validity to the research. Ecological validity concerns the degree to which a study finding can reflect the participants' daily experiences and thus relevance is central to ecological validity (Mackey & Gass, 2015).

5.6 Data Collection

5.6.1 Instruments

Two instruments were employed in data collection; namely written texts and audio-recording of observed pair interactions. Employing a variety of data collection methods was deemed crucial for the provision of richer understanding of the complex dynamics of learner interaction within a genre-based classroom. Combining diverse sources of data is useful in illuminating the issue under investigation, corroborating the results obtained through different methods within the same research study, and improving findings' validity in general (Marshall & Rossman, 2006). Table 5.3 shows the instruments that were employed to address the main research questions of the study.

Table 5.3 *Instruments employed to answer the study Research Questions.*

RQs	Focus of Research Question	Instrument
RQ1	Effect of genre-based writing instruction (GBWI) on writing expository essay content when learners are instructed individually and in pairs.	Analysis of written texts
RQ2	Effect of genre-based writing instruction (GBWI) on writing expository essay organisation when learners are instructed individually and in pairs.	Analysis of written texts
RQ3	Effect of genre-based writing instruction (GBWI) on reduction of narrativity levels when learners are instructed individually and in pairs.	Analysis of written texts
RQ4	Effect of genre-based writing instruction (GBWI) on lexical complexity when learners are instructed individually and in pairs.	Analysis of written texts
RQ5	Effect of genre-based writing instruction (GBWI) on syntactic complexity when learners are instructed individually and in pairs.	Analysis of written texts
RQ6	How learner collaboration assists in completing the writing task.	Transcription of audio-recorded pair dialogues

5.6.1.1 Written Tests

Written texts are considered one of the most common instruments that are employed to elicit language samples under time-constrained conditions (Hyland, 2016). Information obtained from texts can provide valuable insights about learners in terms of their “knowledge of genre, language forms, and rhetorical understandings which allow comparisons with other groups or previous performance” (Hyland, 2016, p. 80). Generally, tests in language learning research are used for a variety of purposes, such as assessing learners’ linguistic ability; determining how successfully language learners have achieved the goals of a certain language course; providing feedback to learners in relation to their performance; and finally offering an

evaluation of the effectiveness of teaching or a research treatment program (Phakiti, 2015), which applies to the current study.

Participants were invited to respond to a prompt which required writing an expository essay. This genre was selected on the basis of its relevance to the participants. Successful expository writing entails the writer's ability to defend his/ her position; appeal to the reader's logic; anticipate and/or counter a reader's position; and align or distance him/herself from used sources (Lee & Deakin, 2016). Additionally, the ability to write different types of expository writing is one of the core requirements across non-disciplinary and degree courses alike in the current context (OAAA, 2009). Following are the three prompts which the learners responded to at pretest, immediate posttest, and delayed posttest (these prompts were similar to topics which the participants which were required to write about or discuss in the classroom):

Prompt A: Technology is influencing the way business is conducted in Oman. Write a unified, coherent expository essay of approximately 250 words on how technology is changing business practices in Oman. Support your answer with examples and reasons.

Prompt B: Advertising plays a role in shaping customs' shopping habits. Write a unified, coherent expository essay of approximately 250 words on the influence of advertising on customers' shopping habits in Oman. Support your answer with examples and reasons.

Prompt C: Some university students opt to establish their own business whilst still at university. Write a unified, coherent expository essay of approximately 250 words about whether university students should think about starting their own business. Support your answer with examples and reasons.

The length of task was controlled for since the participants were required to compose texts of no less than 200-250 words during the three testing stages. Piloting of the instrument revealed

that this text length was appropriate, given the time constraint imposed by the current research context. A normal language class lasts 100 minutes generally. Given my experience as an instructor at the current context, the participants are usually capable of constructing texts of no more than 200-250 words during a single class period. Moreover, each of the three tests was completed on the same day at the same time. This procedure was administered so as to control for leakage of tests' questions. Finally, the order of tasks was counterbalanced so as to control for topic difficulty. Table 5.4 illustrates the mechanism by which task counterbalancing was achieved.

Table 5.4 *Task counterbalancing*

Test/ group	Individual (n=21)	Pair (n=20)	Control (n=22)
Pretest	7 prompt A	6 prompt A	7 prompt A
	7 prompt B	7 prompt B	7 prompt B
	7 prompt C	7 prompt C	8 prompt C
Immediate posttest	7 prompt C	6 prompt C	7 prompt C
	7 prompt A	7 prompt A	7 prompt A
	7 prompt B	7 prompt B	8 prompt B
Delayed posttest	7 prompt B	6 prompt B	7 prompt B
	7 prompt C	7 prompt C	7 prompt C
	7 prompt A	7 prompt A	8 prompt A

Note. The numbers (6, 7, 8) denote the number of participants responding to each prompt.

As shown in Table 5.4, learners in each group were divided into small groups of 6, 7, and 8 as per the writing task (prompt) which they had to complete at one test. A record of examinees was kept in order to ascertain that no student complete the same task twice. For instance, the group of seven students in the Individual group who responded to task A at the pretest had to complete task B at immediate posttest and task C at the delayed posttest. This means that every single student had to respond to all three prompts at the three testing times.

5.6.1.2 Audio-recorded dyadic interactions

The second instrument utilised in the study was audio-recording of the participants' observed interactions. In comparison to other methods of data collection such as pencil and paper and videotaping, Ellis and Barkhuizen (2005) recommend the use of audio recording as the best practice in collecting oral data. With respect to collaborative writing, this method becomes critical since it provides verbatim documentation of how learners strive to consolidate their meanings through dialogue (Bergmann, 2004).

During the treatment, learners were allowed to choose their partners. All of the pairs in the group were of the same gender and participants chose to work with the students sitting next to them. I did not wish to intervene with the participants' preferences as this proved to be counterproductive during the pilot study. Initially, I planned to arrange participants in mixed-gender pairs so as to avoid possible effects of gender differences. However, this was not possible to achieve due to reasons pertinent to the local culture. Still, there was sometimes a need to rearrange a few pairs due to issues in connection with class management.

Once I ensured that the learners were ready to perform collaborative writing, I distributed a digital voice recorder to each of the 10 pairs in the class. I also demonstrated how to operate the digital voice recorders to reinforce understanding. Voice recorders were collected by the end of the class. Pair interactions were recorded for the entire class time. Upon the end of the lesson, the recorded interactions were downloaded and saved in a password-secured laptop for later transcription and analysis.

5.6.2 Procedures

An instruction plan was developed so as to investigate the effect of the proposed pedagogical intervention. The writing instruction plan formed part of the existing schedule which was

implemented at the current research context. This instruction plan ran over a span of 11 weeks between 12 September 2017 and 21 November 2017 and targeted freshmen enrolled in a pre-session language course. The duration of the teaching intervention was decided based on the justification that participants were intermediate-level learners who were yet to attain advanced command of English and thus would require sufficient time to gradually learn and practice writing the target genre. However, teaching instruction lasted for 8 weeks only as the remainder of time was dedicated to testing. Each treatment group received 4 hours of genre-based writing instruction per week, which resulted in a sum of 32 hours of writing instruction throughout the 8 weeks of instruction.

Furthermore, I used my own teaching materials that I compiled from different sources. The teaching materials came from course books used by students so well as external course books. Materials were also obtained from specialized websites that provide non-copyright materials which can be downloaded and used by educators for educational purposes. The Control group, on the other hand, continued to function as normal with their teacher following the course book prescribed by the curriculum in conjunction with other teaching materials obtained from external sources such as the Internet.

Since the current research is interested in examining the effects of GBWI on L2 learners' writing improvement, the genre-based teaching learning cycle adapted from Feez and Joyce (1998) formed the basis of instruction for both experimental groups. The genre-based teaching/learning cycle (TLC) consists primarily of four stages: establishing the context stage, the deconstruction and modelling stage, the joint construction stage, and the independent writing stage. The fifth phase, linking related texts, was not included for the instruction, for the first four stages are the main ones that should form the bulk of genre instruction (Humphery & Feez, 2016).

As noted earlier, although both intervention groups received GBWI, learners in the Individual group performed written tasks individually during the instruction. They also completed all three tests individually. However, they were allowed to have pair discussions during the first three stages. In contrast, participants in the Pair group functioned in pairs throughout the entire instruction period. They- similar to the Individual group- had to complete the three tests individually. Figures 5.3 and 5.4 illustrate the difference in the instructional intervention for each group. As can be seen from the figures, the main difference in the design of the pedagogical intervention lies in stage 4 of the TLC model. While learners in the intervention Individual group were required to produce texts individually (i.e. S) at the fourth stage, pairs of learners were asked to write jointly during the same stage (i.e., [SS]). On the other hand, individual learners were allowed to work in pairs during the instruction if they chose to so do (i.e., T+SS). This is because learners cannot be forced to work entirely individually within GBWI, since it is a communicative pedagogical approach that emphasises learner-centeredness (Hyland, 2004).

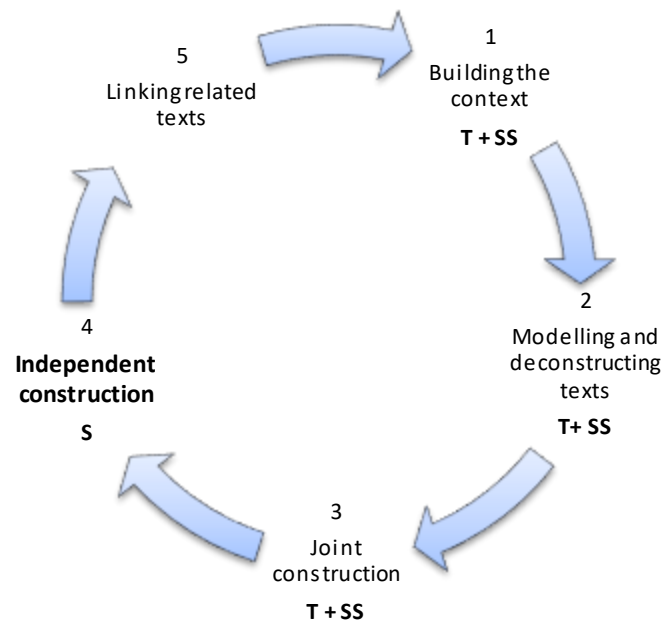


Figure 5.3 TLC in the Individual group (Adapted from Feez & Joyce, 1998)

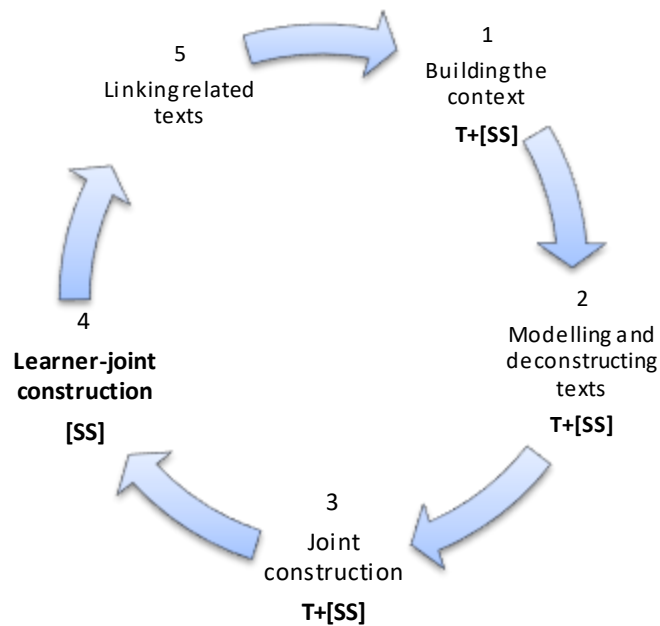


Figure 5.4 Teaching/ learning cycle in the Pair group (Adapted from Feez & Joyce, 1998)

As regards the Pair group, the learners were required to function in collaborative pairs (i.e., T+ [SS]) at all time. In both cases, the teacher (T) was involved during the first three stages, but was completely withdrawn during the independent construction stage.

5.6.2.1 Weekly description of pedagogical intervention

Implementation of the instructional plan was completed over a span of eight weeks. Each week consisted of two sessions each of 90 minutes of genre-based instruction in both intervention groups. Different kinds of expository texts such as compare and contrast as well as cause and effect texts were modelled and analysed. The following is a weekly-based description of the pedagogical procedures that were carried out over the intervention period.

5.6.2.1.1 Week One: Completion of consent forms and pretest

During the first week, learners first completed consent forms after were briefed on what their participation in the study entailed in terms of anonymity and confidentiality of data as well as their right to withdraw from the study. Next, learners were invited to complete pretests

individually. They were not allowed to use external resources such as dictionaries or the Internet. Learners in the Pair group received instruction in collaborative writing. The pilot study revealed that instruction was necessary since a considerable number of participants were unfamiliar with the concept or practice of collaborative writing. To facilitate understanding, instruction was done in two phases. The first phase included a theoretical discussion of the concept of collaborative writing. Learners were instructed to work in pairs and share their insights with other pairs while discussing questions about collaborative writing. At this phase, learners were familiarised with the concept of collaboration. They were also introduced to the strategy of collaborative writing and the key skills required for effective writing collaboration. Upon the end of this session, learners showed enthusiasm and satisfactory understanding of the novel concept. The second phase included the use of a video clip that demonstrated two students while they were writing in pairs. A discussion was held after watching the video clip in order to draw the participants' attention to key skills such as role distribution, team work, and resolution of disagreement.

5.6.2.1.2 Week Two: Establishing the context

As noted earlier, this stage is aimed at guiding learners to build and share understanding of the topic to be discussed in the class. Each of the intervention groups met twice a week and each session lasted for 90 minutes. During the first session, I invited learners to share and discuss their views on how entrepreneurs may benefit from social media platforms such as Instagram and Facebook in advertising and marketing for their businesses. The learners were then invited to complete a pre-reading vocabulary task, which was followed by reading a short article on the same topic. Learners were asked to take notes while reading the article and were informed to use the notes on a post-reading discussion. During the second session of week two, the teacher followed the same procedures as in the first session but with a

different article on the same topic. Finally, learners were given a quick quiz to check understanding and answers were discussed after the quiz.

5.6.2.1.3 Weeks Three and Four: Modelling and deconstruction of texts

For two weeks, learners were instructed to deconstruct model texts from the genre of exposition. During this phase, learners were first familiarised with the purpose of exposition. They were provided with tasks to help them distinguish between arguments (or issues) and opinions. For instance, one task asked students to compile a list of issues that are relevant to their college and required them to phrase the problems as questions. This way, learners could begin to appreciate the fact that people may have different opinions about the same problem. Next, learners were presented with sample expository texts and were instructed to use analysis worksheets to analyse the texts. The model texts which were analysed were taken from some of the course books used at the College in addition to others that came from English writing pedagogy websites.

- Ideational (Content)
 - What is the main idea of the text?
 - Identify the topic sentence in the text?
 - Highlight the supporting details? How are they related to the topic sentence?
 - Identify the thesis statement in the text?

- Interpersonal (the relationship between the author and readers)
 - How would you describe the relationship between the author and the readers in terms of the degree of formality in the model text?
 - What do you think was the purpose of writing the text?
 - Can you identify the position of the author?

- Textual (language)
 - What lexicogrammatical resources does the author use to communicate his/her argument to the reader? Identify the verbs or nouns/ grammatical structures that best communicate the author's argument?
 - How is the text organised? What are the main parts of the text?
 - Is the text cohesive? If so, how is cohesion achieved?
 - Identify the types of sentence found in the text?

Figure 5.5 Sample genre analysis sheet

Use of authentic texts has proven to be productive in teaching of English. However, these texts were slightly adapted to best serve the purpose of the study as well as to control for length. The analysis worksheet covered aspects of content, audience, and lexicogrammatical, which are key aspects in genre analysis. Figure 5.5 provides an example of a worksheet that was used to deconstruct expository texts. As shown in Figure 5.5, analysis of the exposition genre was carried out at three levels; namely ideational, interpersonal, and textual. Additionally, learners were instructed to make use of such techniques as colour coding (using different colours to highlight various parts of a text), text annotation and graphical representation of expository writing organisation, so as to facilitate understanding and practice.

Instruction and analysis of the exposition were based on Martin's (2009) model, which is depicted graphically in Figure 5.6.

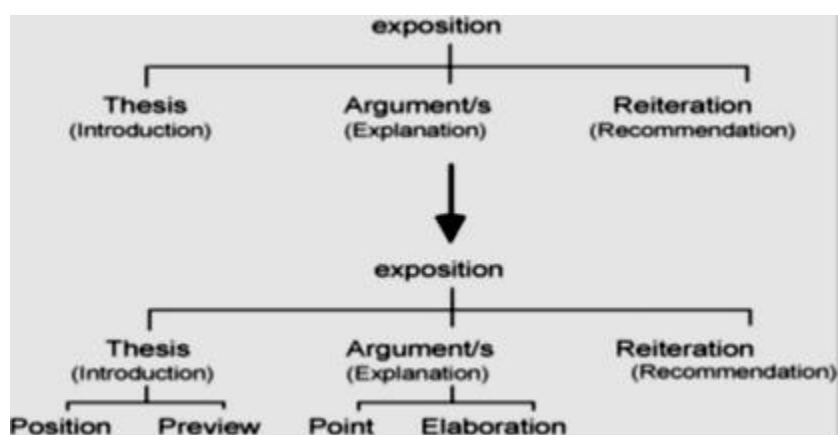


Figure 5.6 Staging structure of the exposition genre (Adapted from Martin, 2009, p. 14)

In the third week, learners were provided with model expository texts and were guided into using the analysis sheet. The teacher took the lead in analysing one of the texts. He demonstrated to students how they should deconstruct a model text in order to identify prototypical features of the exposition genre. The learners were guided to use highlighters to identify the generic structure of the target genre. They were also encouraged to use different colours to identify lexicogrammatical features. During the fourth week, the instructor prompted the learners to practice with a different model text so as to reiterate what was covered in the previous session.

5.6.2.1.4 Week Five: Joint construction

In the fifth week, the teacher first reviewed what had been covered during the previous weeks. Learners were encouraged to keep a log of the tasks which they completed in each session. During the first session of the joint construction stage, the participants were provided with model texts and graphic organisers so as to further practice analysis and deconstruction of model texts in order to internalise the generic structure of the target genre. To focus on

cohesion and coherence, learners completed tasks which required them to rearrange cut part of model texts and then discuss their order with a peer or the teacher. Additionally, the teacher guided deconstruction of model texts through focus on lexicogrammatical aspects which were typical of the exposition genre. During the second session, the teacher prompted learners to brainstorm and generate an outline after rereading the model text. With the teacher's supervision, the students produced a short three-paragraph essay on the topic of marketing. This was followed by a discussion and feedback on students' attempts through highlighting the major problems found in students' essays.

5.6.2.1.5 Weeks Six and Seven: Independent construction

During week six, the teacher first made a revision of the previous stages. Then he discussed selected texts that were written in the previous session. This was meant to provide feedback for students on the strong aspects of their writings as well as aspects which they needed to improve. In week seven, learners in both experimental groups completed writing their first draft during the first session. Learners in the Pair group produced their first draft in pairs and their dyadic interactions were recorded; whereas students in the Individual group wrote individually. The instructor was available as a facilitator to provide feedback through responding to students' questions and scaffolding on general concerns that were raised by students. As for the second session, the teacher spent half an hour commenting on samples of the first draft written in session one. Then he invited the learners to write the second draft of their essays.

5.6.2.1.6 Week Eight: Redrafting

Upon completing the second drafts, the teacher elicited students to provide peer feedback through exchanging their essays with peers. Learners in Pair group provided peer feedback in pairs, while feedback was provided individually in the individual group. Learners in both

groups used a correction list which the teacher provided. By the end of the class, the teacher collected learners' third attempts to be further checked. During the next class, students received their drafts and were allowed some time to ask questions regarding teacher's remarks, after which they were invited to produce their final drafts. Final drafts were marked by the teacher and were returned to the students. This was aimed to inform students of their writing proficiency.

5.6.2.1.7 Weeks Nine and Eleven: Immediate posttest and delayed posttest

The participants were invited to complete an immediate posttest immediately after the end of the instructional intervention (week 9). Learners in both intervention groups as well as the Control group responded to three counterbalanced writing tasks (see Table 5.4). All learners completed the test individually. Two weeks later (week 11), learners were invited again to sit a delayed posttest that was aimed to examine whether learners sustained changes which they made at immediate posttest. Table 5.5 provides a summary of the instructional intervention program.

Table 5.5 *Summary of data collection procedures.*

Week (date)	Pedagogical Focus	Tasks
1 (12 Sep 2017)	- Consent forms completion - Pretest - Collaborative writing (CW) instruction	- Learners complete consent forms, then complete the pretest before they receive CW instruction.
2 (19 Sep 2017)	- Establishing the context: T introduces the first stage in GBWI which is meant to familiarise SS with the target genre as well as sharing understanding of topic and sociocultural aspects.	- Group discussion - Brainstorming tasks - Reading and vocabulary building tasks.
3+4 (26 Sep-3 Oct 2017)	- Modelling and deconstruction stage: SS are instructed to analyse model texts for structural and lexicogrammatical features. - Ample practice with model expository texts.	- Using genre analysis sheets to deconstruct sample texts, in addition to use of techniques such as colour coding and text annotation .
5	- Joint construction: T guides initial writing	- SS complete graphical

(10 Oct 2017)	practice to prepare SS for writing first drafts. - T gradual withdrawal.	organisers while preparing outlines and reading model texts. - SS reorder cut parts of sample texts to practise cohesion and coherence.
6+7 (17-24 Oct 2017)	- Independent construction: SS write their first and second drafts independently in the Individual group and in pairs in the Pair group. - T discusses feedback with SS.	- SS brainstorm, outline and read about a topic relevant to their study. - SS write an expository essay.
8 (31 Oct 2017)	- Feedback and redrafting: SS edit drafts for mistakes. - T reviews what has been covered previously.	- SS exchange drafts for feedback. - SS produce their final drafts independently and in pairs as per the instruction condition.
9 (7 Nov 2017)	- Immediate posttest.	- All SS perform immediate posttest individually.
11 (21 Nov 2017)	- Delayed posttest	- All SS perform delayed posttest individually.

5.7 Data Analysis

This section discusses the data analysis procedures that were undertaken to analyse the data obtained through written tests and audio-recorded pair interactions. Written tests were analysed for content and organisation using a revised analytic rubric (Connor-Linton & Polio, 2014). Texts were also analysed for narrativity, lexical complexity, and syntactic complexity using Coh-Metrix (see section 6.3). The rationale for measuring content and organisation using a human rating scale rather than a computational tool was due to the fact that Coh-Metrix is still incapable of producing reliable results when measuring these two aspects (McNamara et al., 2014). Learner interactions, on the other hand, were analysed for Language Related Episodes (LREs) following the practice of Swain & Lapkin (1998), Leeser (2004) and Wigglesworth and Storch (2009). What follows provides in-depth description of data analysis procedures for each set of data.

5.7.1 Analytic rubric (human rating)

As noted earlier, texts were analysed for content and organisation using the revised analytic rubric that was reported in Connor-Linton and Polio (2014) and which was developed based on Polio (2013) and Jacobs et al. (1981). This rubric has been adopted by previous researchers such as Crossley and McNamara (2014), Martines (2018), Winke and Lim (2015), and Mazgutova and Kormos (2015). It has been used by numerous ESL/EFL instructors and has been described as “one of the best-known multi-trait rubrics in ESL” (Lee, Gentile, & Kantor, 2010, p. 394).

Inter-rater agreement was checked for Content and Organisation. Two raters (i.e., an experienced instructor with a PhD in Applied Linguistics and myself) independently inter-rated a sample of 20% of the essays that were written by participants. The rationale for checking inter-rater agreement was to ascertain that the two raters can reach an acceptable level of agreement using the same rubric to judge the quality of participants’ written texts and thus achieving an acceptable level of evaluation reliability. Prior to rating, the raters jointly checked the used rubric and ensured they both had the same understanding of the description of components provided in the rubric. Inter-rater agreement was checked using a method called percentage of agreement. Because it is unlikely that two raters would achieve perfect agreement, a 75-90 % agreement is considered an acceptable level for inter-rater agreement (Hartmann, 1977). Discrepancies were resolved with a consensus between the two raters.

5.7.2 Uploading Participants’ texts into Coh-Metrix

Coh-Metrix is a web-based software (<http://www.cohmetrix.com>) that provides computational analysis of text cohesion, discourse and a broad range of lexical features based on analysis of a wide variety of linguistic indices (Crossley & McNamara, 2009; Graesser, et al., 2004). The significance of using Coh-Metrix stems from the fact that it has been

developed thanks to advances in other disciplines including computational Linguistics, corpus Linguistics, psychoLinguistics, and discourse processing (Graesser et al., 2004). Such advances have made it possible to generate computational analysis of text that transcends surface level analysis to deeper and more sophisticated language and discourse analysis (Crossley & McNamara, 2009). The use of computational text analysis tools has proven to be efficient, since it is objective, fast and reliable (Crossley & McNamara, 2014).

Texts written by participants at the three testing times were coded and names were removed. Next, all texts were typed. For the purpose of maintaining accurate results, texts were entered without special characters such as exclamation marks or parentheses, as these could affect results. Moreover, all spelling mistakes were corrected while typing the texts. These two practices are advised by the software developers (McNamara et al., 2014) in order to increase the accuracy of results. In order to keep a record of texts, all texts were first typed in a different folder. Then they were copy pasted into Coh-Metrix. Figure 5.7 provides a screenshot of a Coh-Metrix analysis profile of an essay which was written by a participant.

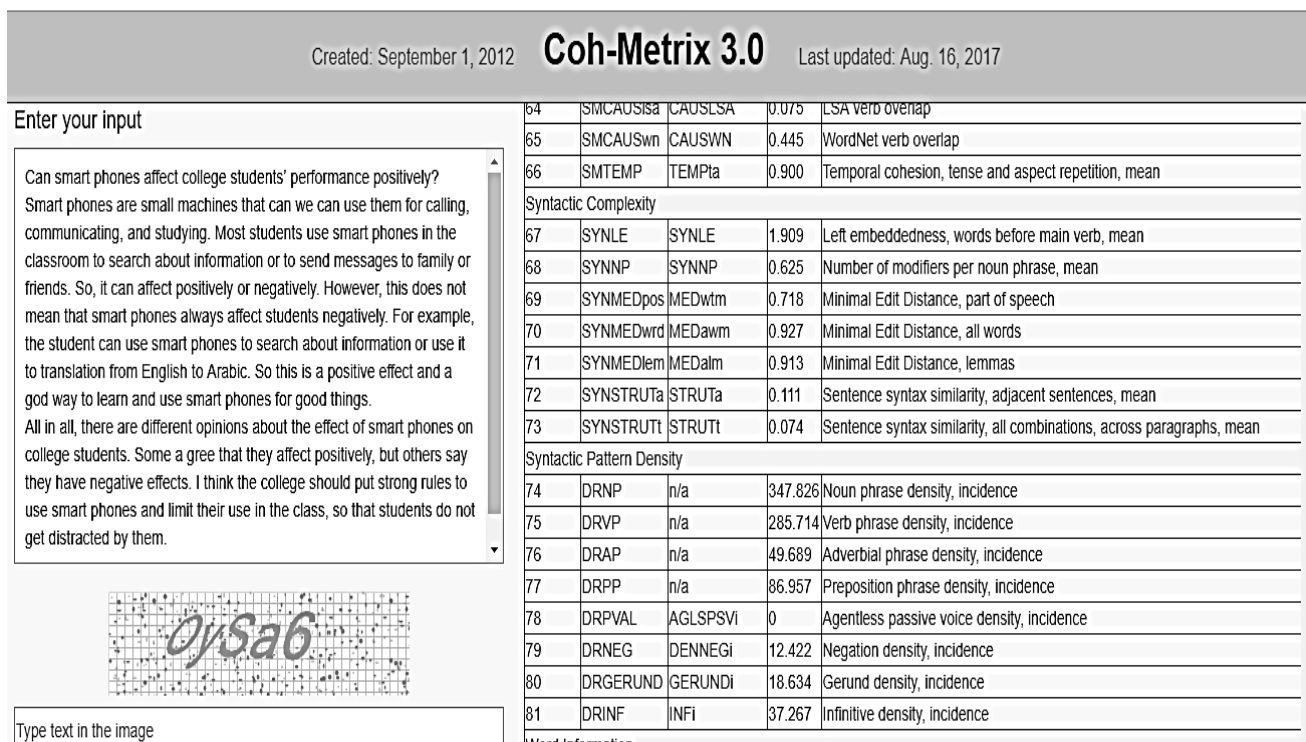


Figure 5.7 A screenshot of Coh-Metrix text results profile

As can be seen in Figure 5.7, Coh-Metrix provides analysis for single texts. Moreover, texts written at one test (e.g., pretest) were entered separately for all three groups, then texts written at immediate posttest and finally delayed posttest. For each student, copies of essays and Coh-Metrix outcomes were saved in a single folder.

5.7.3 Analysis of audio-recorded dyadic interactions

In order to examine how learner collaboration may assist learners to complete written tasks when writing collaboratively, pairs in the Pair group were audio-recorded while producing instances of the target genre in the classroom. Next, recorded interactions were transcribed and coded. Then based on Swain and Lapkin (1998), Leeser (2004), and Wigglesworth and Storch (2009), the dialogues were analysed at three levels (Figure 5.8) as follows:

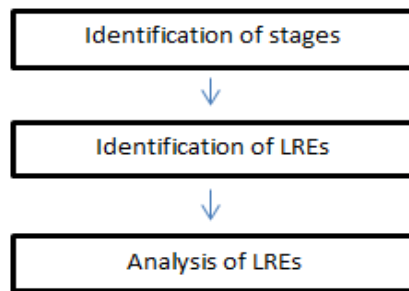


Figure 5.8 Levels of analysis for pair interaction

First, the main writing stages were identified; namely planning, drafting, and editing. This procedure was meant to facilitate analysis by segmenting pair interactions into smaller parts as per the writing processes involved. Second, the entire dyad interaction was divided into episodes. An episode could be one turn or multiple turns focusing on one of the following aspects (Wigglesworth & Storch, 2009):

- Language- related episodes (LREs): Episodes where learners discuss aspects of language.

For instance:

179 A: ok.... First of all... no... to start with

180 M: to begin with

181 A: to start with

182 M: Ok... to start with

- Editing: Episodes where students revise, edit, reread, or comment on the content they have produced. For example:

340 A: Ok, umm... what about supporting sentences and concluding sentence?

341 M: yes we have them here, see?

342 A: *yes*

343 A: *and here this is conclusion sentence*

345 M: *yes.*

The final stage constitutes classification and analysis of language-related episodes (LREs) found in pair talk. A sample (20%) of learners' dyadic interactions was inter-coded to check for consistency and accuracy of LREs classification. There was a 100 % agreement in coding of the sample dialogues.

An episode can be produced collaboratively or individually while learners are attempting to complete a task or produce target language. LREs were classified according to focus. Lexis-focus (L-LRE) episodes focus on lexical form choices. Form-focus (F-LRE) episodes focus mainly on morphology and syntax, and Mechanics-focus (M-LRE) episodes are episodes focusing on performance features such as pronunciation, punctuation, and spelling (Swain & Lapkin, 1998; Wigglesworth & Storch, 2009). LREs were identified and quantified in terms of frequency and number of turns. Each type of LREs was further analysed for a set of aspects. L-LREs were quantified for lexis choice (nouns versus verbs), phrase, and meaning. F-LREs were analysed for verb form, articles, pronouns, prepositions, and sentence structure. Finally, M-LREs were quantified for spelling, pronunciation, and punctuation. Moreover, LREs were analysed for the nature and outcome resolution, following the practice of Swain (1998), Leiser (2004), and Storch (2007). This analysis considered the number of LREs which were resolved interactively; meaning whether that both learners were actively engaged in reaching a resolution to one language problem. The analysis also reported the outcome of the resolution- whether if pairs manage to resolve linguistic problems successfully. Finally, LREs were analysed for patterns of interactions which pairs of learners formed while writing interactively. This analysis was based on Storch's (2002a) classification of interaction

patterns; namely Collaborative, Dominant-Dominant, Dominant-Passive, and Expert-Passive. According to this model, the analysis of interaction patterns is based on two fundamental concepts: equality and mutuality. Equality describes the level of authority assumed by individual learners during an exchange. More specifically, equality is not achieved through equal contribution in terms of producing an equal number of turns by each learner. Instead, it refers to maintaining a similar level of control over the task (van Lier, 1996). On the other hand, mutuality denotes the degree of mutual engagement toward the other learner's contribution. A high level of mutuality occurs when feedback is given reciprocally and ideas are shared between the learners in a pair (Damon & Phelps, 1989).

In sum, the analysis of pair interaction was aimed to expose the role which learner collaboration might play in assisting learners to produce effective instances in the expository essay genre. This analysis focused on the percentage of LREs which learners resolved interactively as well as the interaction patterns which they formed during interaction. Research has shown that the type of interaction pattern can determine the frequency of LREs and quality of collaborative writing (e.g., Watanabe & Swain, 2007).

5.7.4 Statistical analysis

A statistical analysis was conducted with the software SPSS, 2017 version 24 (IBM, 2017). In order to decide whether parametric or non-parametric statistical tests should be used for the analysis of data, the assumptions of normality of distribution of data as well as homogeneity of variance were checked. The assumption of normality assumes that the distribution of means in samples is normal. The assumption of homogeneity of variance, on the other hand, claims that the variances of distribution of data across groups should be equal (Field, 2013). The Shapiro-Wilk normality (Appendix E) test indicated that the scores were normally distributed. In terms of homogeneity of variance, Leven's test was non-significant

for the scores at the three testing points. Thus, parametric tests were carried out for statistical analyses of written essays. Since there are three groups of participants in the present study, different types of the ANOVA test were used to compare means between the three groups: One-way ANOVA, repeated-measures mixed design ANOVA, and one-way ANCOVA.

The one-way ANOVA was conducted with pretests to ensure that the three groups of participants were not different prior to the intervention. The repeated-measures ANOVA was used to investigate the effect of the instructional intervention. Finally, one-way ANCOVA was used to control for the effect of a covariate (i.e., pretest). ANCOVA was used after the relevant assumptions (i.e., independence of covariate and independent variable and assumption of homogeneity of regression slopes) were met. The ANCOVA test was preferred since there were some differences in percentage scores on the pretest. I have adopted this approach following the recommendation by Miller and Chapman (2001) who assert that “the only legitimate use of analysis of covariance is for reducing variability of scores in groups that vary randomly” (p.43).

Finally, effect size was calculated to determine the magnitude of the instructional treatment effect using Cohen’s *d* (1988). Cohen’s *d* was calculated in such a way that the difference between the two group means was divided by the pooled standard deviation of the two groups (Field, 2013; Norris & Ortega, 2000). The following equations were used in estimating effect size, where *S* = standard deviation, *N* = sample size:

$$d = \frac{\text{Mean 1} - \text{Mean 2}}{S(\text{pooled})} \qquad S(\text{pooled}) = \frac{(N_1 - 1) S_1 + (N_2 - 1) S_2}{(N_1 - 1) + (N_2 - 1)}$$

For ANCOVA, effect size was calculated using *r*, which was obtained from partial eta squared (partial η^2), since partial (η^2) is basically (r^2) (Field, 2013). Effect sizes were interpreted following Norris and Ortega (2000) and using Cohen’s recommendation, where

effects lower than .5 were considered small effect size, lower than .8 were medium effect size and effects higher than .8 were regarded large effect size.

5.8 Pilot study

The pilot study was conducted six months before the implementation of the main treatment. For this study, a pilot was conducted so as to achieve a number of goals. Firstly, it was aimed to help the researcher to test the data collection instruments which will then be employed for the main intervention. Also, it was expected to enable the investigator to make adjustments to the research design, based on the weaknesses that could develop during the pilot intervention. It was also thought to assist the researcher to make informed decisions about effective allocation of time and resources. Finally, a pilot was important to ascertain the effectiveness of how the research study will evaluate the effects of the intervention.

The pilot study was conducted in the same research site where the full-scale intervention was implemented. The pilot was carried out over a period of four weeks. Moreover, the overall design of the pilot was somewhat similar to that of the main study. It involved two experimental groups (i.e., individual versus pair) which received genre-based writing instruction under two different instructional conditions. The genre teaching/learning cycle (TLC) by Feez and Joyce (1998) was adopted as the pedagogical approach for the pilot study. Prior to the pilot study, all participants completed a pretest individually. Learners were invited to argue their opinion on the impact of social media on academic performance. Learners in the individual group produced texts independently during the fourth stage of instruction; whereas learner interaction was audio-recorded while learners were composing texts collaboratively. A control group was also recruited. Both experimental groups were instructed to write expository essays by the researcher; whereas the control group was taught by a different instructor in the English department at the College. Similar teaching tasks and

procedures were utilised in the delivery of the genre-based instruction. On the other hand, the control group had no access to the instruction and was instructed according to the traditional writing instruction approach followed in the College. Finally, all three groups were invited to complete a pretest and an immediate posttest.

Three intact small classes (n= 30) were recruited for the pilot study, with 10 participants in each group. The participants were intermediate-level (IELTS 4.0) freshman EFL learners who were enrolled in a pre-sessional English course. The participants were 20 females and 10 males, who were all Omani, L1 Arabic speakers.

A small number of written texts was selected randomly for analysis. Random selection of texts was obtained through a web-based software called Random Number Generator (<http://www.random.org>). The written essays were analysed for the same test variables as the ones in the main study. Also, a small part of audio-recorded pair dialogues was transcribed then analysed for LREs. Overall, the results of repeated measures ANOVA revealed that the intervention groups outperformed the control group on all test variables but syntactic complexity. Moreover, analysis of pair interactions indicated that learner collaboration could assist learners in completing tasks collaboratively, since the majority of LREs were resolved interactively successfully.

Overall, the pilot study confirmed the appropriacy of the study methodology and research methods. However, a number of problems emerged during the piloting. Notably, there was a problem with the timing of the pilot study, since it was conducted toward the end of semester. This proved to be inconvenient, as learners and teachers were busy preparing for final exams. Thus, I decided to undertake instruction earlier at the beginning of the academic semester to allow for adequate instruction. Furthermore, some participants were not clear about writing jointly with a peer. A group of learners manifested confusion while writing collaboratively,

since this approach was still novel and almost never practised before. Thus, I decided to include collaborative writing instruction in the main study so as to ensure that learners will understand the benefit of CW, as well as become confident of their ability to produce written texts collaboratively. Moreover, there was a problem with setting pairs of learners in the pair group. Initially, it was planned that pairs would be set by the teacher to ascertain balanced distribution. However, this proved to be difficult to implement as participants generally preferred to work with peers sitting next to them. For the main study, consequently, learners were allowed to choose their partners. Finally, I decided to include content and organisation as two measures to investigate changes at the discourse level. I also decided to use a revised analytic rubric (Connor-Linton & Polio, 2014) for the measurement of the two variables.

In sum, the pilot study was critical in confirming the effectiveness of intervention in the main study. It also enabled me to expose potential problems and prevent them in the main study.

5.9 Validity and Reliability

Validity and reliability play a key role in determining the effectiveness of quantitative as well as qualitative research. In essence, validity concerns consistency and accuracy of data yielded by a certain instrument. It means that a given instrument should measure what it is supposed to measure. Reliability, on the other hand, is the replicability of a study over time, instruments, and similar groups of participants when investigation repeated under similar circumstances. Additionally, whilst internal validity is construed as the extent to which the results can be attributed to the effect of manipulation of the independent variable(s) on the dependent variable(s), external validity is the degree to which the study results, obtained from a sample, can be generalised to the wider population (Cohen et al., 2011). Because the present study adopts a quasi-experimental research design, internal validity is characteristically inferior to that of true experiments due to lack of randomisation of sample

elements (Dörnyei, 2007). However, as mentioned earlier, quasi-experimental designs have ecological validity that makes them suitable to study a phenomenon in its natural context. Because the study sought to confirm causality, a pretest-posttest-delayed posttest design was adopted. Furthermore, criterion validity was attended to through the use of valid data sources. Data were collected through analysis of learners' written texts and analysis of pairs' dialogues. Such methods of data collection have been used repeatedly by researchers to investigate the improvement of L2 writing (e.g. Dobao, 2012; Storch, 2005; Watanabe & Swain, 2007; Wigglesworth & Storch, 2009). Moreover, validity of results was maintained through construct validity, which is defined as the agreement between a theoretical concept and the measurement devices used to investigate change. For this study, change in test variables was measured using a revised analytical rubric (Connor-Linton & Polio, 2014) as well as Coh-Metrix (McNamara et al., 2014), which are both theoretically-based.

With regard to reliability, the study controls for the extraneous variables such as level of proficiency (all participants were intermediate-level, IELTS 4.0), background (all participants are Omani), age (all participants aged 18-19 years old), and gender (all three groups were gender-mixed). In terms of data analysis, written texts were inter-rated and transcribed audio-recorded interactions were inter-coded.

Finally, the study made a number of efforts to minimise bias. As noted earlier, I was involved in delivering genre-based writing instruction for both intervention groups. Initially, however, it was planned that both groups would be instructed by two teachers from the English department in the College, after they receive instruction in GBWI. Nevertheless, this was not achievable due to logistic constraints pertinent to the teachers. Thus, I implemented the following procedures to avoid bias. Firstly, I used identical teaching materials and tasks in teaching both groups. I also spent a similar amount of time in teaching each group. Secondly, I invited a colleague to observe my performance whilst teaching both groups. This was aimed

to check for potential sources of bias. To maximise credibility, we agreed that both observation sessions should be made without prior notification. The colleague's observation notes were discussed immediately following the end of each class. This step took place during the first week of instruction to ensure prevention of potential bias in subsequent weeks.

5.10 Ethical Considerations

Prior to the commencement of the study, I first obtained permission from the University of York so as to carry out the study. Next, a letter was sent to the College dean and Head of English department at the research site to explain the purpose of the study as well as to gain access to participants and research context. Once permission granted, face-to-face meetings were held separately with the college dean, Head of English department, and English instructors to further familiarise them with the research goals and to answer relevant questions. To ensure full understanding, the learners' consent forms were translated into Arabic, so that learners would not have any difficulty in completing the forms. Additionally, teachers and students were also familiarised with the overall goal of the study, after which they were invited to complete relevant consent forms. Anonymity of participants (names of students, teachers, and college) as well as confidentiality of information were reiterated and assured to all participants. Pseudonyms were used during data analysis instead of learners' real names. Finally, the participants were informed of the possibility to withdraw from the study without the need to explain the reasons.

5.11 Summary

This chapter has presented the methodology and research methods which were involved in the present study. The research questions were presented first, followed by a discussion of operationalisation of the test variables. Next, the study design was explained, followed by a

discussion of the study context (i.e., research site) and participants. The chapter then provided a detailed account of the data collection instruments and procedures. This was followed by an explanation of pilot study. A discussion of validity and reliability was offered next. Finally, the chapter viewed the issues relevant to ethical considerations. Overall, this chapter aimed to provide a detailed account of the study design and data collection instruments and procedures. Such a detailed discussion would illuminate the results provided in the next chapter.

CHAPTER SIX

Quantitative Results

6.0 Overview

This chapter provides the results of analysis of quantitative data obtained from participants' written texts at three testing phases: pretest, immediate posttest, and delayed posttest. Since the current study examined the effect of genre-based instruction on participants' improvement of writing, it was crucial to address changes at three distinct levels: word/phrase, sentence, and discourse (Hyland, 2004). As such, the present study investigated text Content, text Organisation, and reduction of Narrativity so as to address improvement at the level of discourse. It also investigated changes in syntactic complexity and lexical complexity as dependent variables to address changes at word/phrase and sentence levels.

This chapter is organised as follows. First, it presents the research questions. Next, it reports descriptive statistics for each dependent measure. Then the results obtained from repeated-measures ANOVA are presented to report within-group differences at pretest, immediate posttest, and delayed posttest, followed by ANCOVA results to report between – group comparisons.

6.1 Results for text Content

RQ 1: What is the effect of genre-based writing instruction on text Content, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

Text Content was measured using an analytic rubric that was reported in Connor- Linton and Polio (2014). Assessment of text Content was guided by the criteria explained in section 5.2.1, which mainly focused on appropriate improvement of thesis, sufficient and relevant

detailing (section 5.2.1). Assessment ranged between 0 and 20, where 0 indicated absence of any written performance whereas 20 indicated highest performance as per the criteria. Inter-rater agreement for text Content was 88.33, indicating a good agreement between the two raters.

The results of one-way ANOVA revealed that there was no significant difference on pretest scores among the three groups of participants on text Content, $F(2, 60) = .752, p = .476$.

Table 6.1 provides the descriptive statistics for text Content over time.

Table 6.1 *Descriptive statistics for text Content.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	13.57	1.68	14.33	1.18	14.26	1.08
Pair	20	13.27	1.56	14.60	1.02	14.80	.86
Control	22	13.02	1.11	13.25	1.02	13.31	.91

Descriptive statistics for the Individual group revealed that there was some increase between the pretest ($M = 13.57, SD = 1.86$) and the immediate posttest ($M = 14.33, SD = 1.18$), before the scores dropped slightly at the delayed posttest ($M = 14.26, SD = 1.08$). The scores for the Pair group increased from the pretest ($M = 13.27, SD = 1.56$), to the immediate posttest ($M = 14.60, SD = 1.02$), and the delayed posttest ($M = 14.80, SD = .86$). Finally, there was a small increase in text Content scores in the Control group between the pretest ($M = 13.02, SD = 1.11$), the immediate posttest ($M = 13.25, SD = 1.02$) and the delayed posttest ($M = 13.31, SD = .91$). As Figure 6.1 illustrates, the Pair group achieved the highest scores over time; whereas the Individual group scored the lowest. Overall, there was a consistent drop in standard deviation (*SD*) scores across the three groups during the three testing phases, which indicates that variation among participants decreased over time.

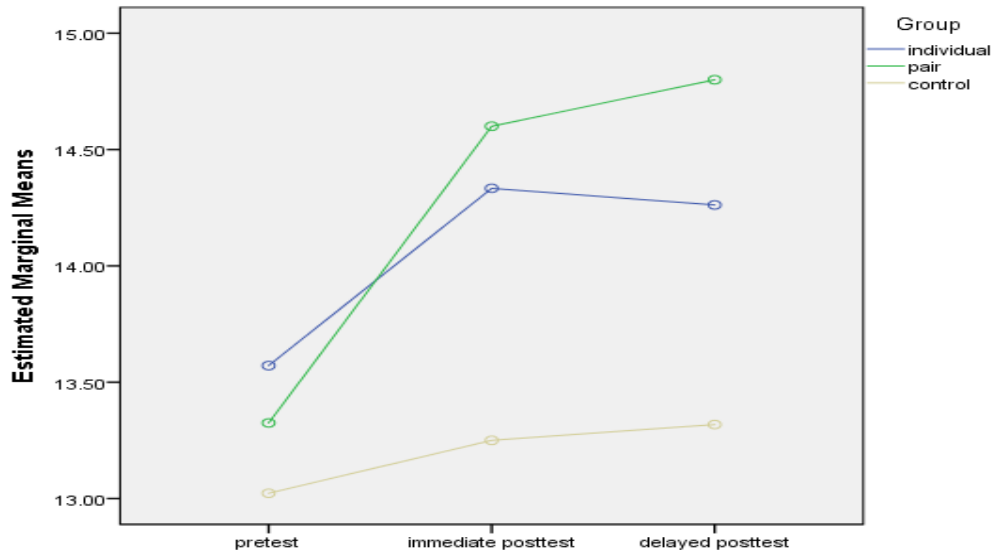


Figure 6.1 Group performance in text Content over time

In order to examine the effect of the instructional treatment over time on text Content, a repeated-measures mixed design ANOVA was conducted with time (i.e., pretest, immediate posttest, delayed posttest) as the dependent variable and treatment condition (i.e., experimental individual, experimental pair, control) as the independent variable. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated, $X^2(2) = 33.23, p > .001$. Therefore, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon = .70$). Analysis of repeated-measures ANOVA revealed a significant main effect for time, Greenhouse-Geisser adjusted $F(1.4, 84.01) = 17.98, p > .001$, as well as a significant time x treatment condition interaction, $F(2.8, 84.01) = 3.12, p = .033$, suggesting that the three groups behaved differently over time.

As shown in Table 6.2, post hoc tests using Bonferroni adjustments (to control for Type I error) for multiple comparisons indicated that the Individual group improved significantly only from the pretest to the immediate posttest ($p = .026$) with a medium effect size ($d = .53$). In the Pair group, there was a statistically significant improvement from the pretest to the

immediate posttest ($p > .001$) with a large effect size ($d= 1.01$). The pair group also improved significantly from the pretest to the delayed posttest ($p > .001$) with a large effect size ($d= 1.21$). No statistically significant improvement was made between the pretest and any of the posttests in the Control group.

Table 6.2 *Within-group differences for text Content*

	Individual	Pair	Control
Pretest vs. immediate posttest	$p = .026$ $d=.53$	$p = .000$ $d= 1.01$	$p > .05$
Pretest vs. delayed posttest	$p > .05$	$p = .000$ $d= 1.21$	$p > .05$
Immediate posttest vs. delayed posttest	$p > .05$	$p > .05$	$p > .05$
	$df= 20$	$df= 19$	$df= 21$

Note. The mean difference is significant at .05 level.

Since the results of repeated-measures ANOVA revealed a significant interaction effect, further analysis was conducted to examine where the group differences lay. Thus, an ANCOVA test was computed on the immediate posttest and delayed posttest, using pretest scores as a covariate.

The assumption of independence of covariate and independent variable was not violated, $F(2, 60) = .78, p= .46$. The test for the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .15, p = .86$, as well as for the delayed posttest, $F(2, 57) = 2.87, p= .65$.

On the immediate posttest, the ANCOVA test of between-subjects effects indicated that there was a statistically significant group difference after controlling for the covariate: $F(2, 59) = 9.76, p > .001, r = .50$. Pairwise comparisons revealed that there was no significant difference between the Individual and Pair groups. However, the Individual group as well as Pair group outperformed the Control group, $p= .011, p = .001$ respectively. At the delayed posttest, the ANCOVA test showed that there was a significant difference between the three groups after

controlling for the covariate (pretest): $F(2, 59) = 10.63, p > .001, r = .55$. Pairwise comparisons revealed that both experimental groups were significantly higher than the Control group: Individual group, $p = .015$; Pair group, $p > .001$. However, no statistically significant difference was found between the experimental groups.

6.1.1 Summary of results for text Content

To sum up, the results indicated that both experimental groups and the Control made improvement on text Content over time. However, the intervention groups (i.e., Individual and Pair) outperformed the Control group on immediate posttest and delayed posttest. The results also revealed that there was no statistically significant difference between the experimental groups.

6.2 Results for text Organisation

RQ 2: What is the effect of genre-based writing instruction on text Organisation, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

Text Organisation was measured using an analytic rubric that was developed to assess essays written by L2 learners (Connor-Linton & Polio, 2014). Assessment of text Organisation was guided by the criteria explained in section 5.2.2. Assessment ranged between 0 and 20, where 0 indicated absence of any written performance whereas 20 indicated highest performance as per the criteria. Inter-rater agreement for text Organisation was 87.66, indicating good agreement between the two raters.

The results of one-way ANOVA revealed that there was no significant difference on the pretest scores among the three groups of participants on text Organisation, $F(2, 60) = .057, p = .945$. Table 6.3 displays the descriptive statistics for text Organisation over time.

Table 6.3 *Descriptive statistics for text Organisation.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	12.28	1.89	13.71	1.01	13.71	.89
Pair	20	12.32	1.74	13.95	.94	13.87	.81
Control	22	12.16	1.38	12.52	1.11	12.54	.95

Descriptive statistics for the Individual group revealed that there was an increase between the pretest ($M=12.28$, $SD= 1.89$) and the immediate posttest ($M= 13.71$, $SD= 1.01$), but no change at the delayed posttest ($M= 13.71$, $SD= .89$). Similarly, the scores for the Pair group increased between the pretest ($M= 12.32$, $SD= 1.74$) and the immediate posttest ($M= 13.95$, $SD= .94$), before they slightly dropped at the delayed posttest ($M= 13.87$, $SD= .81$). Finally, there was an increase in text Organisation scores in the Control group from the pretest ($M= 12.16$, $SD= 1.38$), to the immediate posttest ($M= 12.52$, $SD= 1.11$) and the delayed posttest ($M= 12.54$, $SD= .95$). Overall, there was a consistent drop in standard deviation scores in the three groups at the three testing phases, suggesting less variation in learners' performance. Figure 6.2 illustrates the groups' performance at the three testing times.

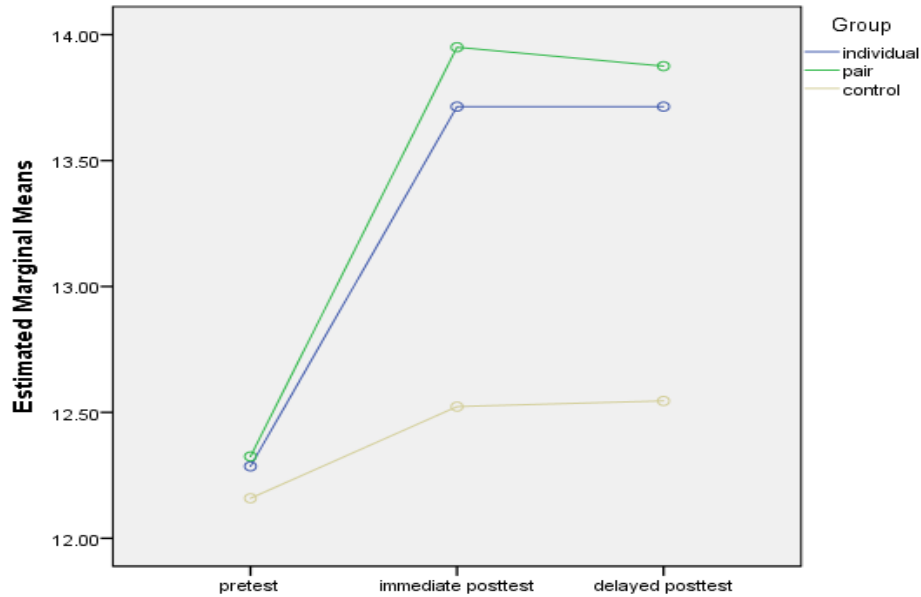


Figure 6.2 Group performance in text Organisation over time

To investigate the effect of the instructional treatment on organisation, a repeated-measures ANOVA was conducted with time as the dependent variable and treatment condition as the independent variable. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated, $X^2(2) = 75.26, p > .001$. Thus, degrees of freedom were adjusted using Greenhouse-Geisser estimates of sphericity ($\epsilon=.58$). The results of repeated-measures ANOVA indicated a significant main effect for time, $F(1.2, 69.7) = 34.56, p > .001$. Furthermore, there was time x treatment condition interaction, $F(2.33, 69.74) = 4.01, p = .018$, which suggests that the three groups of participants performed differently over time.

As shown in Table 6.4, post hoc tests using Bonferroni adjustments for multiple comparisons indicated that the Individual group improved significantly from the pretest to the immediate posttest ($p > .001$) with a large effect size ($d = .94$), and from the pretest to the delayed posttest ($p > .001$) with a large effect size ($d = .97$). Similarly, in the Pair group, there was a statistically significant improvement from the pretest to the immediate posttest ($p > .001$)

with a large effect size ($d= 1.17$), and from the pretest to the delayed posttest ($p > .001$), with a large effect size as well ($d= 1.14$). In contrast, no statistically significant improvement was made between the pretest and any of the posttests in the Control group.

Table 6.4 *Within-group differences for text Organisation*

	Individual	Pair	Control
Pretest vs. immediate posttest	p= .000 d= .94	p = .000 d= 1.17	p > .05
Pretest vs. delayed posttest	p= .000 d=.97	p = .000 d=1.14	p > .05
Immediate posttest vs. delayed posttest	p > .05	p > .05	p > .05
	df= 20	df= 19	df= 21

Note. The mean difference is significant at .05 level.

Because repeated-measures ANOVA results indicated a significant main interaction effect, further analyses were conducted to examine where significant differences occurred. Thus, an ANCOVA test was computed on the immediate posttest and delayed posttest, using the pretest scores as a covariate. The assumption of independence of covariate and independent variable was not violated, $F(2, 60) = .78, p = .46$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .15, p = .86$, as well as for the delayed posttest, $F(2, 57) = 2.87, p = .65$.

On the immediate posttest, the ANCOVA test indicated that there was a statistically significant group difference after controlling for the covariate, $F(2, 59) = 14.81, p > .001, r = .58$. Pairwise comparisons showed that there was no significant difference between Individual group and Pair group. However, the Individual group as well as Pair group both outperformed the Control group, $p > .001, p > .001$ respectively. On the delayed posttest, the ANCOVA test showed that there was a statistically significant difference between the three groups after controlling for the covariate: $F(2, 59) = 16.46, p > .001, r = .60$. Pairwise comparisons revealed that both experimental groups were significantly higher than the Control group:

Individual, $p = .015$; Pair, $p > .001$. However, no statistically significant difference was found between the experimental groups.

6.2.1 Summary of results for text Organisation

Overall, the results indicated that the three groups made significant improvement between the pretest and immediate posttest, with the Control group making the least improvement. Similar to the results on Content, the intervention groups outperformed the Control group on immediate posttest and delayed posttest, but there was no statistically significant difference between the experimental groups.

6.3 Results for the reduction of Narrativity

RQ 3: What is the effect of genre-based writing instruction on the reduction of Narrativity, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

Improvement in this variable is understood through decrease in scores, as academic writing is characterised by reduced use of narrative language. Results in this measure were computed by Coh-Metrix.

The results of one-way ANOVA indicated that there was no significant difference on pretest scores among the three groups of participants on Narrativity reduction, $F(2, 60) = .075, p = .93$. Descriptive statistics for Narrativity reduction scores are displayed in Table 6.5 and Figure 6.3.

Table 6.5 *Descriptive statistics for Narrativity.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	65.37	10.53	63.11	9.21	64.14	8.95
Pair	20	66.20	9.36	64.71	9.09	65.02	8.80
Control	22	66.45	8.81	67.14	8.48	67.58	7.94

Descriptive statistics for the Individual group revealed that there was a decrease between the pretest ($M= 65.37, SD= 10.53$) and the immediate posttest ($M= 63.11, SD= 9.21$), with a slight increase at the delayed posttest ($M= 64.14, SD= 8.95$). Similarly, the scores for the Pair group dropped between the pretest ($M= 66.20, SD= 9.36$) and the immediate posttest ($M= 64.71, SD= 9.09$), before they slightly rose at the delayed posttest ($M= 65.02, SD= 8.80$). Finally, there was an increase in Narrativity scores in the Control group between the pretest ($M= 66.45, SD= 8.81$), the immediate posttest ($M= 67.14, SD= 8.84$) and the delayed posttest ($M= 67.58, SD=7.94$). Overall, there was a consistent drop in standard deviation scores in the three groups at the three testing phases. The Control group produced the highest Narrativity scores at the three test points.

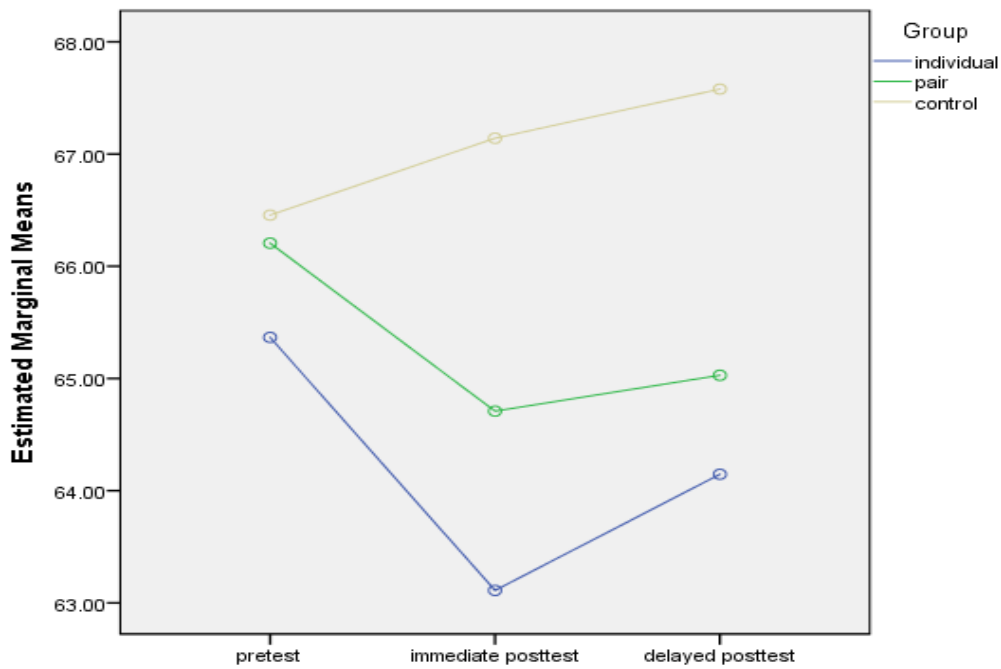


Figure 6.3 Group performance on Narrativity over time

To examine the impact of the instructional intervention on the reduction of Narrativity, a repeated-measures ANOVA was computed with time as the dependent variable and treatment condition as the independent variable. Mauchly's test of sphericity indicated that the assumption of sphericity had been violated, $X^2(2) = 19.78, p > .001$. Hence, degrees of freedom were corrected using Greenhouse-Geisser estimates of sphericity ($\epsilon=.77$). The repeated-measures ANOVA results revealed that there was a significant main effect for time, $F(1.51, 90.63) = 5.9, p = .008$, as well as a significant main effect for time x treatment condition interaction, $F(3.02, 90.63) = 5.47, p = .002$, suggesting that groups of participants performed differently at the testing times.

As can be seen in Table 6.6, post hoc tests using Bonferroni adjustments revealed that the Individual group dropped significantly from the pretest to the immediate posttest ($p > .001$) with a small effect size ($d = -.23$), and between the immediate posttest and the delayed

posttest ($p = .013$) with a small effect size ($d = -.13$) as well. Similarly, in the Pair group, there was a statistically significant decline in Narrativity scores from the pretest to the immediate posttest ($p = .029$) with a small effect size ($d = -.16$). By contrast, no statistically significant improvement was observed between pretest and any of the posttests in the Control group.

Table 6.6 *Within-group differences for Narrativity*

	Individual	Pair	Control
Pretest vs. immediate posttest	$p = .000$ $d = -.23$	$p = .029$ $d = -.16$	$p > .05$
Pretest vs. delayed posttest	$p > .05$	$p > .05$	$p > .05$
Immediate posttest vs. delayed posttest	$p = .013$ $d = -.13$	$p > .05$	$p > .05$
	$df = 20$	$df = 19$	$df = 21$

Note. The mean difference is significant at .05 level.

Because the repeated-measures ANOVA results showed a significant main interaction effect, further analyses were carried out to investigate where exactly significant differences occurred. An ANCOVA test was conducted on the immediate posttest and delayed posttest, using pretest scores as a covariate. The assumption of independence of covariate and independent variable was met, $F(2, 60) = .78, p = .46$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .15, p = .86$, as well as for the delayed posttest, $F(2, 57) = 2.87, p = .65$.

On the immediate posttest, the ANCOVA test indicated that there was a statistically significant group difference after controlling for the covariate, $F(2, 59) = 9.87, p > .001, r = .50$. Pairwise comparisons showed that there was no significant difference between the Individual group and Pair group. However, the Individual group as well as Pair group both were significantly lower than the Control group, $p > .001, p = .010$, respectively, suggesting

that there was significantly higher reduction in Narrativity in both experimental groups. On the delayed posttest, the ANCOVA test revealed that there was a significant main difference between groups after controlling for the effect of covariate, $F(2, 59) = 6.82, p = .002, r = .44$. Pairwise comparisons indicated that both experimental groups were statistically significantly lower than the control group- Individual, $p = .005$; Pair, $p = .010$, and thus larger Narrativity reduction. On the other hand, no statistically significant difference was found between the experimental groups.

6.3.1 Summary of results for the reduction of Narrativity

The results showed that the instructional intervention had an effect on reducing the levels of Narrativity, as both experimental groups outperformed the Control group on immediate as well as delayed posttests. The results also indicated that there was no statistically significant difference between the intervention groups in terms of reduction of Narrativity.

6.4 Results for Lexical Complexity

6.4.1 Results for MTLD

RQ 4.1A: What is the effect of genre-based writing instruction on MTLD when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

The first Coh-Metrix index that was used to measure lexical complexity was Measure of Text Lexical Diversity (MTLD).

The results of one-way ANOVA revealed that there was no significant difference on the pretest scores among the three groups of participants on MTLD, $F(2, 60) = 1.30, p = .28$.

Table 6.7 and Figure 6.4 illustrate the changes among the groups over time.

Table 6.7 *Descriptive Statistics for MTL D.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	59.34	13.22	60.59	14.04	73.23	19.42
Pair	20	52.62	14.98	60.27	18.18	57.58	15.00
Control	22	55.15	12.36	51.31	8.85	58.54	11.54

In the Individual group, the scores of MTL D increased steadily between the pretest ($M=59.34$, $SD=13.22$) and the immediate posttest ($M= 60.59$, $SD= 14.04$) before they sharply rose at the delayed posttest ($M= 73.23$, $SD= 19.42$). Pairs of learners also improved from the pretest ($M= 52.62$, $SD= 14.98$) and the immediate posttest ($M= 60.27$, $SD= 18.18$). However, scores dropped at the delayed posttest ($M= 57.58$, $SD= 15.00$) but remained higher on the pretest. Finally, the Control group exhibited somewhat different performance pattern, as unlike both experimental groups, scores of MTL D dropped between the pretest ($M= 55.15$, $SD= 12.36$) and the immediate posttest ($M= 51.31$, $SD= 8.85$) before they increased at the delayed posttest ($M= 58.54$, $SD= 11.54$). Overall, both experimental groups obtained higher scores than the control group at the immediate posttest. The Individual group produced the highest scores at the three testing points.

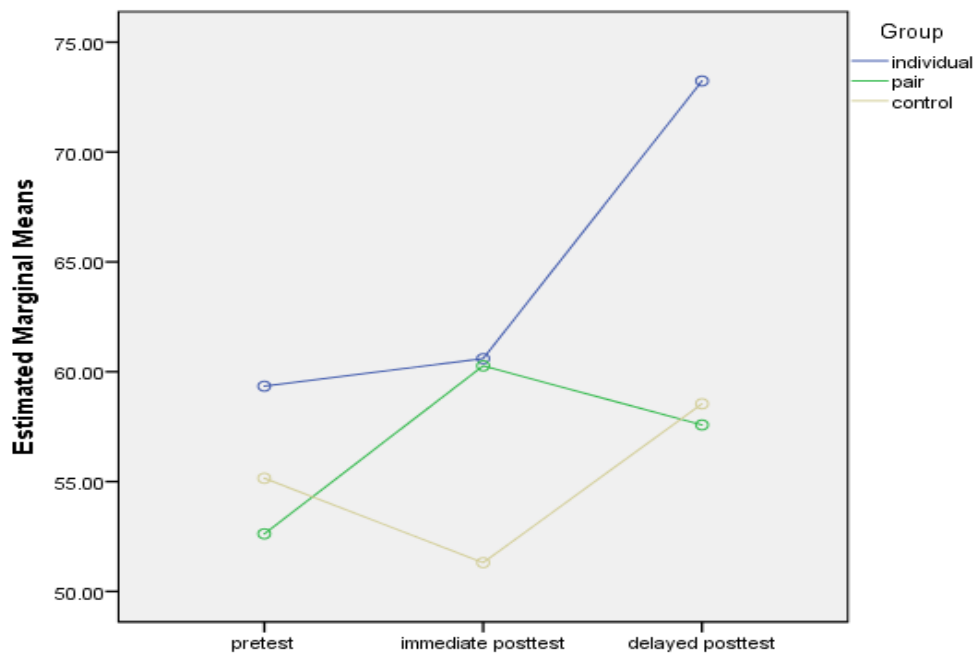


Figure 6.4 Group performance in MTLT over time

A repeated-measures ANOVA was conducted with time as the dependent variable and treatment condition as the independent variable. Mauchly's test revealed that the assumption of sphericity had been met, Mauchly's $W(2) = .92, p = .081$. The repeated-measures ANOVA results indicated a statistically significant main effect for time, $F(2,120) = 5.43, p = .006$, as well as a significant time x treatment condition interaction, $F(4,120) = 2.48, p = .047$, suggesting that the groups of participants behaved differently at the test points.

As can be seen in Table 6.8, post hoc tests using Bonferroni adjustments for multiple comparisons revealed that only the Individual group improved statistically significantly from the pretest to the delayed posttest ($p = .011$) with a large effect size ($d = .84$), and between the immediate posttest and the delayed posttest ($p = .003$) but with a medium effect size ($d = .75$). All other analyses revealed a non-significant difference.

Table 6.8 Within-group differences for MTL D

	Individual	Pair	Control
Pretest vs. immediate posttest	$p > .05$	$p > .05$	$p > .05$
Pretest vs. delayed posttest	$p = .011$ $d = .84$	$p > .05$	$p > .05$
Immediate posttest vs. delayed posttest	$p = .003$ $d = .75$	$p > .05$	$p > .05$
	$df = 20$	$df = 19$	$df = 21$

Note. The mean difference is significant at .05 level.

Since the repeated measures ANOVA results showed a significant main interaction effect, further analyses were carried out to investigate where significant differences occurred. An ANCOVA test was conducted on the immediate posttest and delayed posttest, using pretest scores as a covariate. The assumption of independence of covariate and independent variable was not violated, $F(2, 60) = 1.30, p = .28$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .15, p = .86$, as well as for the delayed posttest, $F(2, 57) = .18, p = .84$.

On the immediate posttest, the results of ANCOVA indicated that there was no statistically significant difference between groups after controlling for the effect of the covariate, $F(2, 59) = 2.94, p = .61$. On the delayed posttest, the ANCOVA results revealed there was a statistically significant difference between groups after eliminating the effect of the pretest, $F(2, 59) = 6.49, p = .003, r = .42$. Pairwise comparisons were conducted and the results showed that the Individual group outperformed the Pair group, $p = .007$, as well as the Control group, $p = .010$. There was no significant difference between Pair group and Control group.

6.4.2 Results for the reduction of word Concreteness

RQ 4.2 B: What is the effect of genre-based writing instruction on the reduction of word Concreteness when:

a) Learners are instructed to write individually

b) Learners are instructed to write in pairs

The second measure for Lexical Complexity is reduction of word Concreteness. An essay is characterized by an increased use of abstract lexical choices; therefore, the index of word Concreteness within Coh-Metrix was chosen to investigate improvement in the levels of abstractness. Coh-Metrix calculates the average ratings of Concreteness for content words found in a text. More abstract words receive a lower rating- for example, *protocol* (264), compared to more concrete words such as *ball* (615) (McNamara, et al., 2014).

The results of one-way ANOVA revealed that there was no significant difference on the pretest scores across the three groups of participants on Concreteness, $F(2, 60) = .066, p = .94$.

The descriptive data for word Concreteness is given in Table 6.9.

Table 6.9 Descriptive statistics for word Concreteness.

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	354.06	20.37	386.58	18.58	367.10	15.60
Pair	20	354.84	20.22	350.34	20.82	349.06	21.66
Control	22	352.59	20.78	353.76	20.30	358.39	23.55

As Table 6.9 and Figure 6.5 show, the scores of word Concreteness in the Individual group rose between the pretest ($M = 354.06, SD = 20.37$) and the posttest ($M = 386.58, SD = 18.58$) but dropped at the delayed posttest ($M = 367.10, SD = 15.60$). Conversely, scores achieved by pairs of learners in the Pair group declined from the pretest ($M = 354.84, SD = 20.22$) to the immediate posttest ($M = 350.34, SD = 20.82$) and continued to drop at the delayed posttest

($M= 349.06$, $SD= 21.66$). Finally, there was a steady increase in scores of Concreteness in the Control group, from the pretest ($M= 352.59$, $SD= 20.78$), to the immediate posttest ($M= 353.76$, $SD= 20.30$), and the delayed posttest ($M= 358.39$, $SD= 23.55$). Overall, although both experimental groups produced almost identical scores at the pretest, they exhibited different performance trends after the treatment. Also, the Individual group was similar to the Control group as both groups increased at the pretest and delayed posttest, unlike the Pair group which continued to drop from the pretest to the delayed posttest.

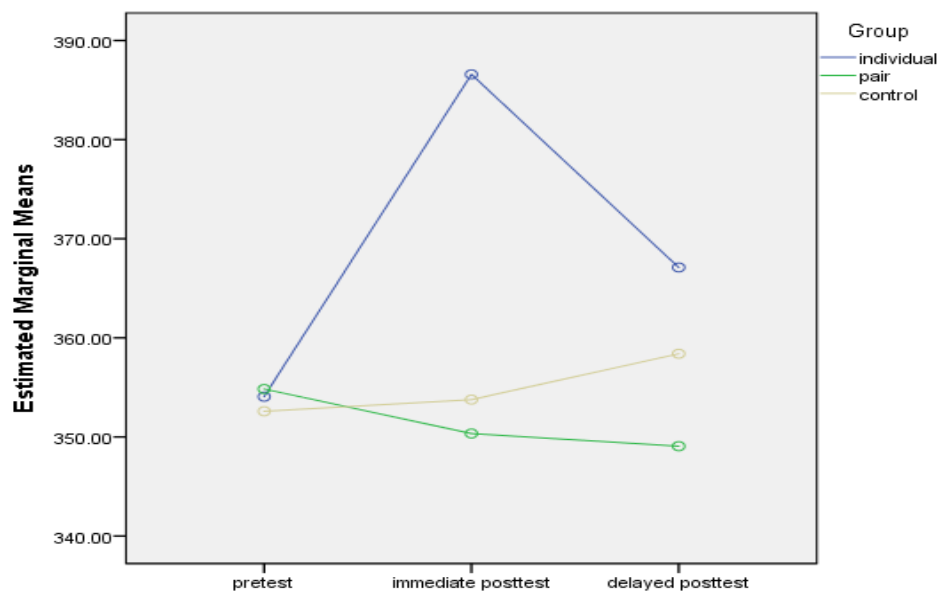


Figure 6.5 Group performance on word Concreteness over time

To investigate the impact of the treatment, a repeated-measures ANOVA was conducted with time as the dependent variable and treatment condition as the independent variable.

Mauchly's test revealed that the assumption of sphericity had been met, Mauchly's $W(2) = .95$, $p = .204$. The results of repeated-measures ANOVA indicated a significant main effect for time, $F(2,120) = 15.39$, $p > .001$, and there was as well a time x treatment condition interaction, $F(4, 120) = 23.13$, $p > .001$. This suggests that groups performed differently at the three testing points.

As can be seen in Table 6.10, post hoc tests using Bonferroni adjustments revealed that only the Individual group increased significantly in word concreteness from the pretest to the immediate posttest ($p > .001$) with a large effect size ($d= 1.67$), between the pretest and the delayed posttest ($p > .001$) with a medium effect size ($d= .72$). However, the individual group dropped statistically significantly from the immediate posttest to the delayed posttest ($p > .001$) with a large effect size ($d= -1.14$). All other analyses for the Pair and Control groups revealed a non-significant difference for the three tests.

Table 6.10 *Within-group differences for word concreteness*

	Individual		Pair	Control
Pretest vs. immediate posttest	$p = .000$	$d= 1.67$	$p > .05$	$p > .05$
Pretest vs. delayed posttest	$p = .000$	$d= .72$	$p > .05$	$p > .05$
Immediate posttest vs. delayed posttest	$p = .000$	$d= - 1.14$	$p > .05$	$p > .05$
	$df = 20$		$df = 19$	$df = 21$

Note. The mean difference is significant at .05 level.

Since the repeated-measures ANOVA results showed a significant main interaction effect, further analyses were carried out to investigate where exactly significant differences could be observed. An ANCOVA test was conducted on the immediate posttest and delayed posttest, using pretest scores as a covariate. The assumption of independence of covariate and independent variable was met, $F(2, 60) = .066, p = .94$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest $F(2, 57) = 13.26, p = .32$, as well as for the delayed posttest, $F(2, 57) = 20.73, p = .42$.

On the immediate posttest, the ANCOVA test of between-subjects effects indicated that there was a statistically significant difference between groups after controlling for the effect

of the covariate, $F(2, 59) = 45.60, p > .001, r = .78$. Pairwise comparisons indicated that the Individual group was significantly lower than the Pair group, $p > .001$ and significantly lower than Control group, $p > .001$. On the delayed posttest, the ANCOVA results revealed there was a statistically significant difference between groups after eliminating the effect of the pretest, $F(2, 59) = 9.20, p > .001, r = .49$. Pairwise comparisons showed that the Individual group was lower than the Pair group, $p > .001$, but it was not significantly different from the Control group. Finally, the Pair group was significantly higher than the Control group, $p = .040$. This suggests that the Pair group showed improvement in terms of using more abstract vocabulary, unlike the Individual and Control groups.

6.4.3 Summary of results on Lexical Complexity

The results indicated that, on MTLT, there was no significant difference between the three groups on the immediate posttest. However, the results revealed that the Individual group outperformed the Pair group and the Control on the delayed posttest. As regards the reduction of word Concreteness, the results indicated that the Pair group outperformed the Individual group on the immediate posttest but was equal to the Control group. On the delayed posttest, the Pair group outperformed the Individual group as well as the Control group.

6.5 Results for Syntactic Complexity

6.5.1 Results for reduction of syntactic simplicity

RQ 5 A: What is the effect of genre-based writing instruction on syntactic complexity as measured by the reduction of syntactic simplicity, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

To answer RQ 5 A, this section presents the results for the measure syntactic complexity. Syntactic complexity was measured using two indices that were calculated by Coh-Metrix: percentile of syntactic simplicity (PCSYNp) and the mean of sentence syntactic similarity for adjacent sentences (STRUTa), indicating that a decrease in both syntactic simplicity and sentence similarity shows an increase in syntactic complexity (Crossley, Greenfield, & McNamara, 2008; McNamara, et al., 2014).

The results of one-way ANOVA revealed that there was no significant difference on the pretest scores among the three groups of participants on syntactic simplicity, $F(2, 60) = 1.01$, $p = .37$. Table 6.11 and Figure 6.6 display descriptive statistics for syntactic simplicity and performance over time.

Table 6.11 *Descriptive statistics for Syntactic Simplicity.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	59.13	13.87	65.69	19.72	62.33	16.81
Pair	20	56.27	17.78	51.93	18.02	62.33	16.81
Control	22	65.35	10.17	82.35	7.48	77.59	9.00

In the Individual group, scores of syntactic simplicity increased between the pretest ($M = 59.13$, $SD = 13.87$) and the immediate posttest ($M = 65.65$, $SD = 19.72$) but declined at the delayed posttest ($M = 62.33$, $SD = 16.81$). Scores in the Pair group dropped between the pretest ($M = 56.27$, $SD = 17.78$) and the immediate posttest ($M = 51.93$, $SD = 18.02$), but increased at the delayed posttest ($M = 62.33$, $SD = 16.81$). Finally, there was a sharp increase in the scores of syntactic simplicity for the Control group between the pretest ($M = 65.35$, $SD = 10.17$) and the immediate posttest ($M = 82.35$, $SD = 7.48$) before scores declined at the delayed posttest ($M = 77.59$, $SD = 9.00$). Overall, the Individual group and Control group

produced higher scores than the Pair group at the immediate posttest and delayed posttest.

The Control group produced the highest scores at the three testing points.

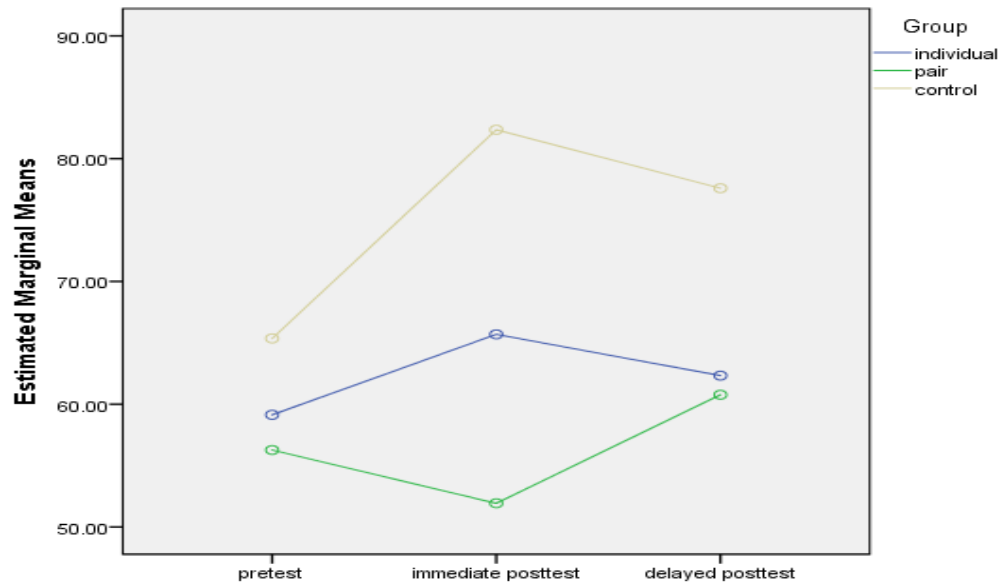


Figure 6.6 Group performance in syntactic simplicity over time

In order to examine the effect of the instructional intervention on syntactic simplicity, a repeated-measures ANOVA was computed with time as the dependent variable and treatment condition as the independent variable. Mauchly's test indicated that the assumption of sphericity had been violated, $X^2(2) = 9.15, p = .01$. Hence, degrees of freedom were adjusted using Greenhouse-Geisser estimates of sphericity ($\epsilon = .87$). The repeated-measures ANOVA results showed a significant main effect for time, $F(1.75, 104.93) = 3.21, p = .05$.

Furthermore, the repeated-measures ANOVA results for time x treatment condition interaction was $F(3.50, 104.93) = 2.43, p = .061$. Although the p value was close to significance, I decided to carry on between-groups comparison tests. This was based on recommendations to avoid Type II error, since the p -value could be strongly affected by

sample size (Plonsky, 2015, Plonsky & Oswald, 2014). In other words, the p-value in this case could have probably been significant had the sample size been larger.

As can be seen in Table 6.12, post hoc tests using Bonferroni adjustment for multiple comparisons revealed that only the Control group increased significantly in syntactic simplicity from the pretest to the immediate posttest ($p = .011$) with a large effect size ($d = 1.90$). There was no change in reducing syntactic simplicity for the Individual and Pair groups as all the analyses revealed a non-significant difference at the three tests.

Table 6.12 *Within-group differences for syntactic simplicity*

	Individual	Pair	Control
Pretest vs. immediate posttest	$p > .05$	$p > .05$	$p = .011$ $d = 1.90$
Pretest vs. delayed posttest	$p > .05$	$p > .05$	$p > .05$
Immediate posttest vs. delayed posttest	$p > .05$	$p > .05$	$p > .05$
	df = 20	df = 19	df = 21

Note. The mean difference is significant at .05 level.

Because the repeated-measures ANOVA results for group main interaction effect was considered significant, further analyses were carried out to investigate where exactly significant differences occurred. An ANCOVA test was conducted on the immediate posttest and delayed posttest, using pretest scores as a covariate. The assumption of independence of covariate and independent variable was met, $F(2, 60) = .88, p = .27$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .24, p = .56$, as well as for the delayed posttest, $F(2, 57) = 2.57, p = .42$.

On the immediate posttest, the ANCOVA test indicated that there was no statistically significant group difference after controlling for the covariate, $F(2, 59) = 18.29, p = .32$. On

the delayed posttest, the ANCOVA test revealed that there was also no significant difference between groups after controlling for the effect of covariate, $F(2, 59) = 9.90, p = .21$. Thus, pairwise comparisons were not conducted for both tests.

6.5.2 Results for Sentence Syntactic Similarity

RQ 5 B: What is the effect of genre-based writing instruction on syntactic complexity as measured by the reduction of sentence syntactic similarity, when:

- a) Learners are instructed to write individually
- b) Learners are instructed to write in pairs

The second measure that was used in calculating change in syntactic complexity was reduction of syntactic similarity. Coh-Metrix computes syntactic similarity by calculating the similarity of syntactical structures in a given text. A text with more uniform sentences is less syntactically complex and thus easier to read.

The results of ANOVA revealed that there was no significant difference on the pretest scores across the three groups of participants on sentence syntactic similarity, $F(2, 60) = 1.63, p = .20$. Table 6.13 displays the descriptive statistics for sentence syntactic similarity.

Table 6.13 *Descriptive statistics for syntactic similarity.*

Group	N	Pretest		Immediate posttest		Delayed posttest	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Individual	21	.12	.03	.11	.02	.11	.02
Pair	20	.12	.03	.10	.03	.10	.02
Control	22	.11	.03	.12	.04	.15	.09

The descriptive statistics revealed that in the Individual group, the scores of syntactic similarity declined between the pretest ($M = .12, SD = .03$) and the immediate posttest ($M =$

.11, $SD= .02$) and remained unchanged at the delayed posttest ($M= .11, SD= .02$). Similarly, the scores in the Pair group dropped between the pretest ($M= .12, SD= .03$) and the immediate posttest ($M= .10, SD= .03$), after which it remained almost unchanged at the delayed posttest ($M=.10, SD= .02$). Finally, there was an increase in the scores of sentence syntactic similarity for the Control group between the pretest ($M= .11, SD= .03$), the immediate posttest ($M= .12, SD=.04$) and the delayed posttest ($M=.15, SD= .09$). Overall, As Figure 6.7 displays, the experimental groups were approximately similar in the direction of performance towards a declining trend. The control group; on the other hand, demonstrated a higher growth over time.

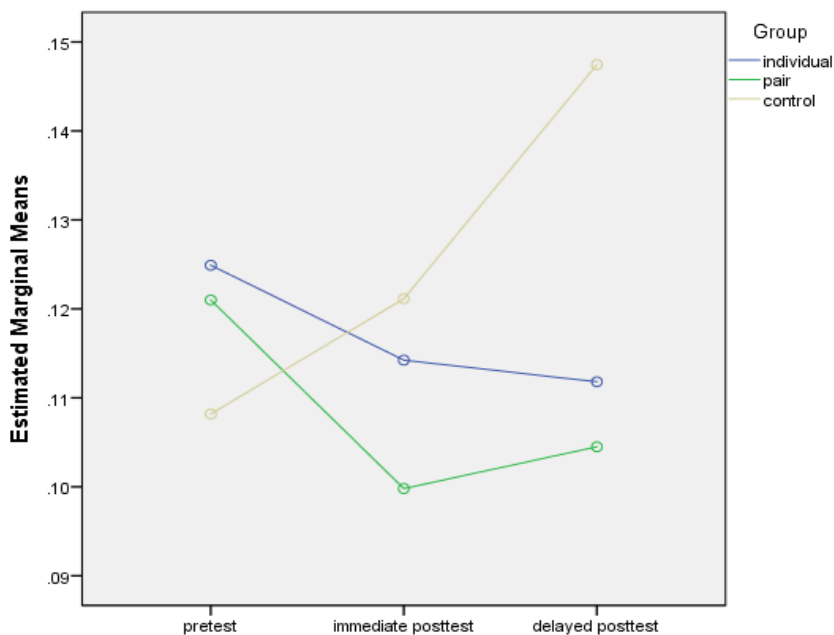


Figure 6.7 Group performance in syntactic similarity over time

To investigate the effect of the treatment, a repeated-measures ANOVA was conducted with time as the dependent variable and treatment condition as the independent variable.

Mauchly's test indicated that the assumption of sphericity had been violated, $X^2(2) = 12.19$, $p = .002$. Thus, the degrees of freedom were corrected using Greenhouse-Geisser estimates of

sphericity ($\epsilon=.84$). The repeated-measures ANOVA results indicated a non-significant main effect for time, $F(1.68, 101.12) = 1.05, p = .34$. However, there was a significant time x treatment condition interaction, $F(3.37, 101.12) = 3.84, p = .009$.

Since the repeated-measures ANOVA results showed a significant main interaction effect, further analyses were carried out to investigate which groups are significantly different from one another. An ANCOVA test was conducted on the immediate posttest and delayed posttest, using pretest scores as a covariate. The assumption of independence of covariate and independent variable was met, $F(2, 60) = 1.63, p = .20$. The test of the assumption of homogeneity of regression slopes indicated that this assumption was met for the immediate posttest, $F(2, 57) = .09, p = .91$, as well as for the delayed posttest, $F(2, 57) = .01, p = .99$.

On the immediate posttest, the ANCOVA test of between-subjects effects indicated that there was no statistically significant difference between groups after controlling for the effect of covariate, $F(2, 59) = 2.90, p = .06$. Considering the advice by Plonsky (2015) and Plonsky and Oswald (2014) about the effect of sample size on the p-value, further analyses were conducted. Post hoc tests showed that there was no significant difference among the three groups. On the delayed posttest, the results of ANCOVA revealed a significant effect of treatment condition after controlling for the effect of the covariate, $F(2, 59) = 3.84, p = .027, r = .40$. Post hoc tests revealed that there was no statistically significant difference between the Individual group and Pair group, and as well no statistically significant difference between the Individual group and Control group. However, the Pair group was significantly higher than the Control group, $p = .039$, which suggests that instruction in this group did help learners to use more varied syntactic structures after the end of the instructional intervention.

6.5.3 Summary of results on Syntactic Complexity

As for reduction of syntactic simplicity, there was no significant difference between the intervention groups and the Control group at the immediate posttest as well as the delayed posttest. As regards the reduction of syntactic similarity, there was no significant difference between the experimental groups and the Control on the immediate posttest. On the delayed posttest, however, the Pair group outperformed the Control group but was similar to the Individual group.

6.6 Summary

This chapter presented the analysis of the participants' results on written essays. Overall, the results indicated that the intervention groups outperformed the Control group on the discourse variables (i.e., Content, Organisation, and Narrativity) and to a lesser extent on the linguistic variables (i.e. Lexical Complexity and Syntactic Complexity). Table 6.14 below summarises the main findings for each measure in the present study. The summary highlights the main group differences as observed at the immediate posttest and delayed posttest.

Table 6.14 *Summary of key findings*

	MEASURE	IMMEDIATE POST-TEST Group differences	DELAYED POST-TEST Group differences
	Text Content	Individual = Pair Individual > Control Pair > Control	Individual = Pair Individual > Control Pair > Control
	Text Organisation	Individual = Pair Individual > Control Pair > Control	Individual = Pair Individual > Control Pair > Control
	Reduction of Narrativity	Individual = Pair Individual > Control Pair > Control	Individual = Pair Individual > Control Pair > Control
Changes in lexical complexity	MTLD	Individual=Pair Individual= Control Pair= Control	Individual > Pair Individual > Control Pair = Control
	Reduction of concreteness in lexical choices	Individual < Pair Individual < Control Pair = Control	Individual < Pair Individual = Control Pair > Control
Changes in syntactic complexity	Decrease in syntactic simplicity	Individual=Pair Individual= Control Pair= Control	Individual=Pair Individual= Control Pair= Control
	Decrease in sentence syntactic similarity	Individual=Pair Individual= Control Pair= Control	Individual = Pair Individual = Control Pair > Control

As shown in Table 6.14, although both intervention groups outperformed the Control group, there was no statistically significant difference between the Individual group and the Pair on the discourse variables. This suggests that writing collaboratively within a genre-based writing classroom was not necessarily reflected in individual practice. Furthermore, the results showed that the impact of the instructional intervention was evident in terms of Lexical Complexity and Syntactic Complexity but to a lesser extent. These results are further discussed in Chapter 8.

CHAPTER SEVEN

Analysis of pair interaction

7.0 Overview

This chapter presents analysis of transcribed pair interactions in the Pair group. First, pair talk was analysed for the main writing stages which were found in pair dialogues. Second, dialogues were analysed so as to identify the main types of episodes. Third, pairs' exchanges were coded for Language Related Episodes (LREs). Three types of LREs were addressed: Form- Language Related Episodes (F-LREs), Lexis-Language Related Episodes (L-LREs), and Mechanics- Language Related Episodes (M-LREs) (Wigglesworth & Storch, 2009). LREs were further analysed in terms of the nature and outcome of resolution formed by pairs during interaction, as well as the proportion of LREs that were resolved interactively by particular pairs. Learners' dialogues were also coded for the patterns of interactions which pairs formed during their dyadic exchanges. Finally, the chapter concludes with a brief summary which sums up the major findings of the analysis.

7.1 Analysis of pair interaction

RQ 6: How does pair collaboration and interaction assist in completing the written task?

To address RQ6, this section presents the results of the analysis of 10 pair interactions. After receiving instruction in collaborative writing, the participants in the Pair group were invited to write collaboratively in a genre-based writing classroom for a total of eight weeks.

Analysis of dyadic interactions was carried out in three stages. First, pair dialogues were analysed for the main writing phases (i.e., planning, composing, editing), followed by identification of LREs and finally analysis of LREs. During the eight weeks of instruction, students were allowed to spend approximately around 60-80 minutes on a given collaborative writing task. Time variability was affected by topic familiarity, task demand in terms of the

required amount of writing, and learner-learner pattern of interaction. Although learners were familiarised with the topic of writing during the modelling phase, it was noticed that pairs of participants required extra time when writing about a topic that was not quite familiar to them. As such, learners were granted more time to search or further generate ideas in order to complete the written task. Furthermore, because learners were instructed to produce different genres such as the paragraph and essay genres, allocation of time was different depending on the length of text that participants had to produce in the classroom.

7.1.1 Planning, Composing and Editing

The analysis of pair interactions revealed that learners generally organised their production of collaboratively written texts into three distinct phases. As can be seen in Table 7.1, the three phases were planning, composing, and revision or editing. The amount of time which learners spent in each writing stage was calculated for each pair.

Table 7.1 *Number of average turns and time spent on outlining, composing, and editing*

	Writing phase		
	Outlining	Composing	Editing
Average no. of turns	107	660	75
Time allocated (in minutes)	15	48	10

On average, learners spent around 15 minutes planning their essays, during which time they produced an average of 107 turns. During the planning stage, pairs of learners collaboratively brainstormed ideas for the content and/ or discussed the structure of their texts. It was also during this stage when they assigned roles as, for instance, who would be responsible to write down the text. Furthermore, the pairs spent about 48 minutes composing their texts, and

produced an average of 660 turns. In this stage, learners expanded the ideas brainstormed in the planning stage by adding examples to support and explain their thoughts. Finally, learners dedicated about 10 minutes to revise and edit their finished work and produced 75 turns on average. During this phase, learners edited their texts mainly for surface-level aspects such as spelling and punctuation as well as text organisation and content.

Overall, it can be seen that learners dedicated a greater amount of time composing their texts. They also spent less time on editing than planning. In one of the dialogues, Fatma and Ruqaya¹ spent approximately 10 minutes to produce a total of 83 turns while brainstorming ideas for a paragraph writing task titled “why people go to university”. During this phase, the dyad interaction was focused principally on generating ideas (or points as Fatma likes to call them) in order to be utilised later as supporting details. By the end of the planning phase, the two learners managed to generate three main reasons (Figure 7.1) for why people join university, namely to pursue higher education, to expand knowledge of one particular area of specialisation, and to make friendships.

¹ Pseudonyms

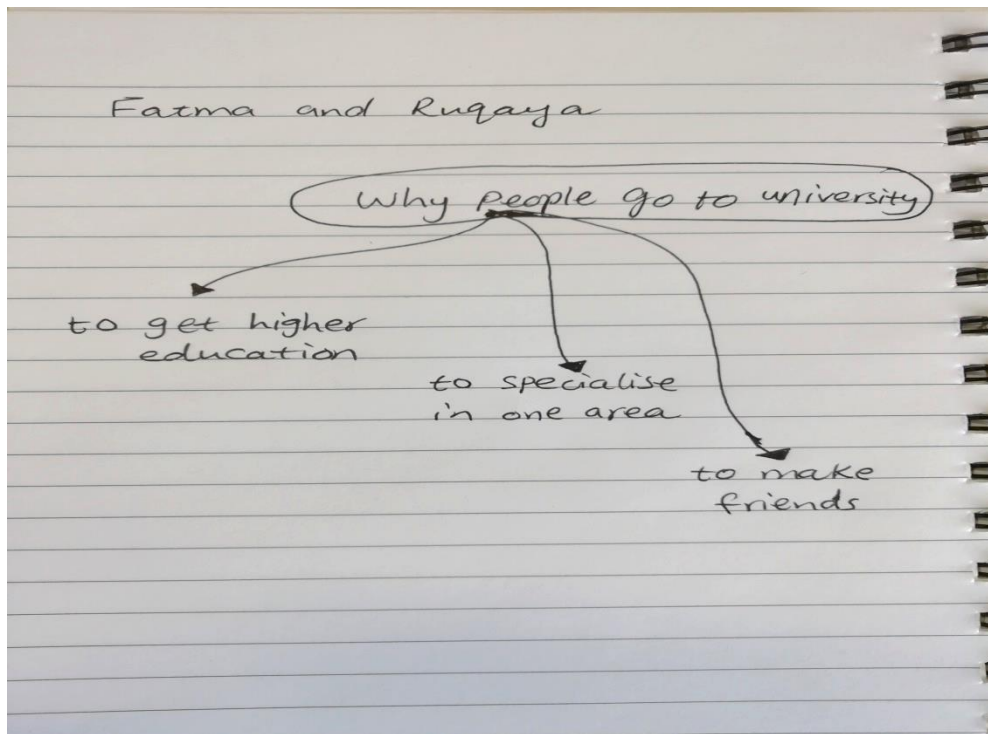


Figure 7.1 Reasons brainstormed by a pair for why people go to university

7.1.2 Identification of episodes

In order to identify episodes in pair talk, transcribed dialogues were segmented into episodes or parts, based on the focus of interaction. As can be seen in Figure 7.2, there are different types of episodes found in the dyad interactions. The episodes are task related, content-related, structure-related, revision, LREs and Other types of episodes (e.g., speaking in Arabic; chat irrelevant to task) (Wigglesworth & Storch, 2009). These episodes varied as per the sum of turns as well as the rate of occurrence in each writing phase. A turn in a pair talk can be defined as a single contribution or exchange from individual learners during an instance of collaborative work.

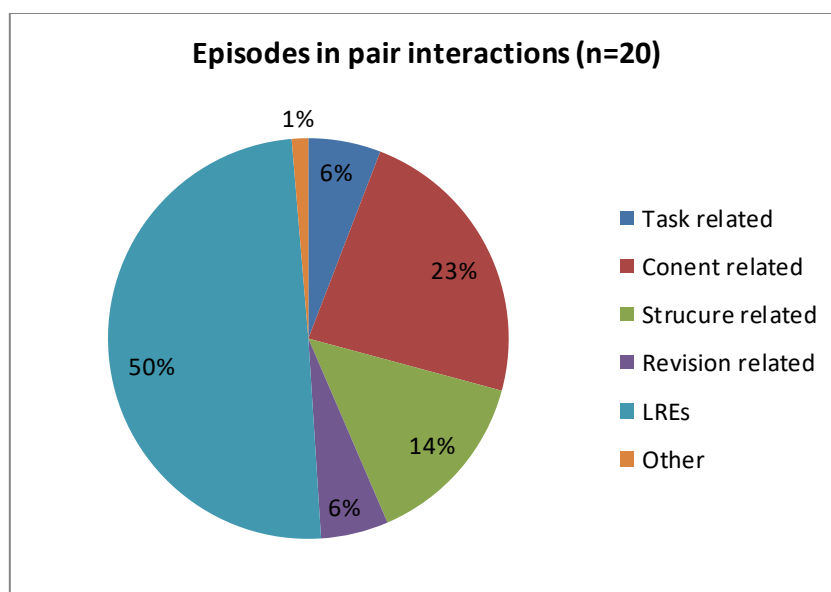


Figure 7.2 Episodes in pair interactions

Figure 7.2 shows the types of episodes found in pair interactions and the corresponding number of turns produced in each type of episode. It can be clearly seen that LREs were the highest in number, forming 50 % of all episodes. Episodes focusing on *content* came second after LREs; constituting 23 % of the total episodes in the interactions. Content episodes were generated mainly during the planning and composing phases. Furthermore, learners produced 7200 turns during discussions of text structure (14%). Of the three main stages of writing, learners produced the smallest number of turns during the revision stage (6%). Finally, there were task related episodes, which focused mainly on understanding task requirements. The following excerpt exemplifies brainstorming during the planning phase.

Excerpt 7.1: Brainstorming ideas during the composing stage (content-related episode)

44 Maryam: also to feel umm... a responsible person...

45 Asma: they....

46 Maryam: to feel more confident

47 Asma: *ok... umm...*

48 Maryam: *to be an independent person.*

49 Asma: *ok, write this: "people go to university to be independent".*

50 Maryam: *yes, I think it is good. I write it now.*

Furthermore, Learners spent considerable time discussing the structure of their essays while writing jointly. Discussions of structure were found both during the planning stage as well as the composing stage. The following excerpt exemplifies learners' discussion of text organisation during the planning stage.

Excerpt 7.2: Pair discussion of text structure during the planning stage

64 Salem: *so how we write the essay?*

65 Bader: *ok... so this is argument yes?*

66 Salem: *yes... I think... umm... so we write expository essay*

67 Bader: *that's right... ok so we need introduction, body, and conclusion*

68 Salem: *yes*

69 Bader: *ok, so how we write introduction? You remember?*

70 Salem: *I think first we write a hook, then background sentences*

71 Bader: *yes yes yes, and finally thesis statement... now remember*

The above excerpt illustrates the way these two learners collaborated and interacted in planning the structure of a text they were about to begin composing. The learners collaboratively pool their knowledge of essay structure and both contributed to the

completion of task. On the other hand, pairs of learners spent considerably less time revising and editing their texts after they had finished composing. Excerpt 7.3 provides an instance during which a pair revised their texts together.

Excerpt 7.3: A sample of revision- related episode in pair dialogue

480 Zahra: *now we finished.*

481 Aysha: *ok, so we can revise it and find mistakes.*

482 Zahra: *yes, but I think it is good.*

483 Aysha: *yeah I think...*

484 Zahra: *ok, let's read and find mistakes... ok, here this word spelling is wrong.*

485 Aysha: *yes... umm ... ok I think not many mistakes*

486 Zahra: *yes... ok, I think we finish now.*

As can be seen from Excerpt 7.3, this pair spent a short time editing their text. It seems that the learners were not particularly interested in revising their finished text as they decided that no editing was required after correction of a single spelling mistake.

7.2 Language Related Episodes (LREs)

Pair interaction was coded for LREs, following the practice of Swain (1998). As noted above, an LRE is any part of pair dialogue where learners negotiate, question, or correct their own or others' use of language (Swain & Lapkin, 1998). Language related episodes (LREs) formed the bulk of episodes in pairs' interaction, as learners spent half (50 %) of the composing time discussing LREs. Table 7.2 provides a summary of the frequency of three types of LREs, namely Lexis-LREs, Form-LREs, and Mechanics-LREs.

Table 7.2 *Language related episodes (LREs) (n=20)*

Type of LRE	Number	%	No. of Turns
L-LREs	5640	46.80	26460
F-LREs	5200	43.15	25300
M-LREs	1210	10.05	7840
Total LREs/Turns	12050	100.00	59600

During the eight-week long instruction, 10 pairs of learners produced a total of 12050 LREs in 59600 turns. Lexis-focused episodes (L-LREs) were the most common (46.80 %), followed by Form-focused episodes (F-LREs) (43.15%). Mechanics- focused episodes (M-LREs) received the least attention (10.05%). I shall now focus on each type of LREs.

7.2.1 Lexis-language related episodes (L-LREs)

Pairs of learners spent a considerable amount of interaction time negotiating their use of vocabulary. As Figure 7.3 displays, negotiations of L-LREs were focused on verb and noun choices and to a much lesser extent on phrases. Pairs also negotiated word meaning and use of prepositions. In their negotiations of lexis choices, the pairs were concerned mainly with the use of more formal words, diversity, and use of more abstract vocabulary.

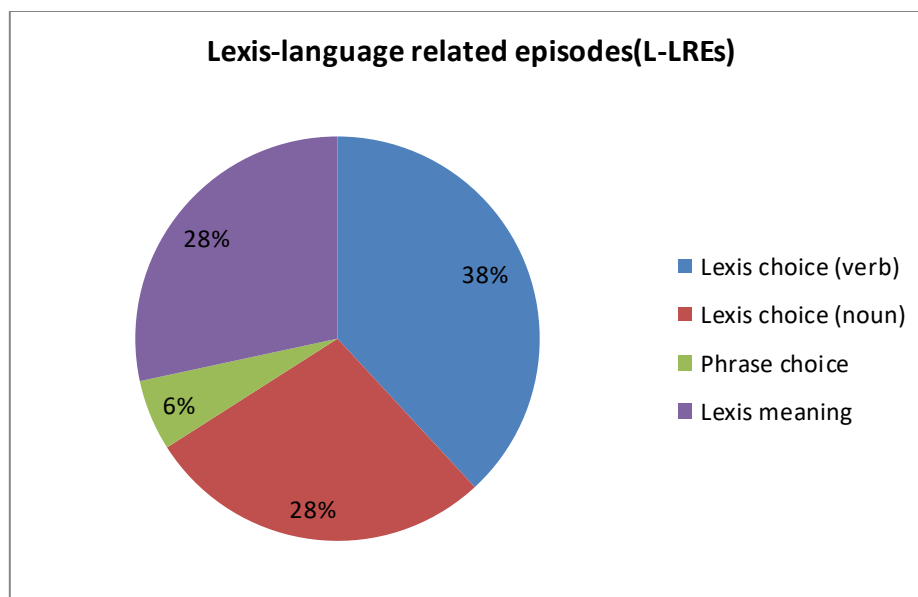


Figure 7.3 Lexis-language related episodes

As can be seen in Figure 7.3, choice of verb received the highest attention (38%) among pairs of learners, followed by negotiations of noun selection and lexis meaning (28%). Phrase choice was the least discussed type of episode (6%). These results suggest that learners were more concerned with negotiating the use of single verbs and nouns and therefore paid less attention to the use of larger lexical units such as phrases. Excerpt 7.4 provides an example of a L- LRE where learners discussed verb choice.

Excerpt 7.4: An example of L-LRE on verb choice.

520 Basma: *what the word when somebody give a lot of attention for something?*

521 Aamna: *umm... I think maybe focus?*

522 Basma: *yes I know this word, but another word I want.*

523 Aamna: *aahah...do you mean pay attention?*

524 Basma: *no no another word, I think it has c.*

525 Aamna: *so the first letter is c?*

526 Basma: *yes*

527 Aamna: *I try to remember... aaha... I think you mean concentrate?*

528 Basma: *ahaha... yes concentrate, very good.*

The excerpt above illustrates how learners pooled their knowledge of vocabulary so as to remember a word which one of the learners thought it was the right word to use. On the other hand, Excerpt 7.5 exemplifies pairs' negotiation of a noun use.

Excerpt 7.5: An example of L-LRE on noun choice.

202 Fatma: *so this sentence... we need a noun*

203 Ruqaya: *that's right... what is the noun of global?*

204 Fatma: *global not noun right?*

205 Ruqaya: *no no, I think it's adjective.*

206 Fatma: *ok.*

207 Ruqaya: *do you know?*

208 Fatma: *I don't know... let's see it in the dictionary*

209 Ruqaya: *yes I found it... globalisation.*

210 Fatma: *that's correct, I found it also.*

211 Ruqaya: *let's write it.*

212 Fatma: *ok.*

In the above example, the pair managed to find the needed word, although only after consulting their dictionaries. The third type of L-LREs is phrase choice, where learners negotiated the use of different types of phrase such as noun phrases, verb phrases, and prepositional phrases. Excerpt 8.6 below exemplified a pair negotiation on the use of a prepositional phrase.

Excerpt 7.6: A pair negotiation on a prepositional phrase use

309 Mohammed: let's say examples...

310 Said: for example.

311 Mohammed: yes

312 Said: or for instance... no no... to illustrate

313 Mohammed: ok

The above excerpt provides an interesting exchange between two learners. Clearly, Mohammed was capable of providing several phrases that were all appropriate for the task. Furthermore, lexis meaning was a recurrent L-LRE type of episode, where learners negotiated or questioned their knowledge of the meaning of certain words. Excerpt 7.7 illustrates how one learner in a pair explained a new word to a fellow student.

Excerpt 7.7: An example of pair negotiation on lexis meaning

156 Noor: write this: "... in order to emphasise the problem ..."

157 Sheikha: what emphasise mean?

158 Noor: you don't know?

159 Sheikha: no.

160 Noor: *ok, it means ... umm... you know when you say something is very important.*

161 Sheikha: *so it mean very important?*

162 Noor: *no no no. how I say this... it means for example when you say you pay a lot of attention for something, you know?*

163 Sheikha: *ok so it mean to give something attention.*

164 Noor: *yes attention or importance.*

165 Sheikha: *ok thank you... new word for me.*

The last type of L-LREs is preposition choice. In this L-LRE, pair talk was focused on the correct choice of prepositions. An example of such negotiations is given in Excerpt 7.8 below.

Excerpt 7.8: An example of negotiation on preposition choice

402 Manal: *ok write: "When the plane arrived to Muscat..."*

403 Wisal: *not to Muscat... in Muscat.*

404 Manal: *are you sure? I think it is to*

405 Wisal: *yes I'm sure... because we say in Arabic to... you think the same in English?*

406 Manal: *ok, I will write in.*

The above dialogue illustrates how one learner corrected the use of a preposition. Wisal managed not only to supply the correct preposition, but also provided an explanation behind the incorrect use of preposition by Manal.

7.2.2 Form-language related episodes (F-LREs)

Form-focused LREs were the second highest in number comparing to other types of LREs.

Figure 7.4 summarises the types of F-LREs found in the pair interaction. Overall, pairs produced 5 types of F-LREs.

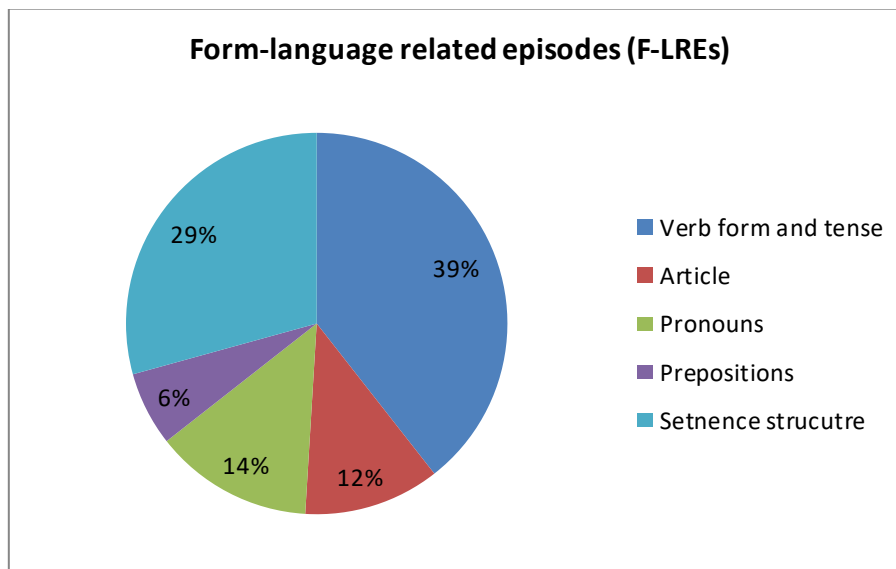


Figure 7.4 Form-language related episodes

Figure 7.4 shows that pairs of learner generated 5 types of F-LREs. The results showed that problems associated with verb form/ tense received the highest attention (39%) followed by sentence structure (29%). On the other hand, problems relevant to pronouns received considerably less attention (14%) than verb morphology and sentence structure. Prepositions were the least discussed, constituting only 6 % of the total number of F-LREs. In what follows, I shall provide examples of pair interactions for each type of F-LREs.

To begin with, Excerpt 7.9 illustrates how one pair negotiated verb form in terms of subject-verb agreement.

Excerpt 7.9: An example of verb form F-LRE

85 Omar: *so he need to design a plan for the business if he want to become successful.*

86 Nasser: *needs not need*

87 Omar: *oh sorry, yes you right.*

88 Nasser: *also becomes not become because he is singular... one*

89 Omar: *that's right... sorry I forget it.*

The above exchange shows us that Nasser successfully corrected the incorrect use of verb form twice. However, it is interesting to see Omar's agreeable reaction, suggesting that he probably knew the grammar rule but temporarily failed to apply it. Moreover, learners produced episodes where they negotiated verb tense, as we can see in Excerpt 7.10 below.

Excerpt 7.10: An example of verb tense F-LRE

367 Nasra: *Businessmen should thought about the results of their plans...*

368 Munira: *I think something wrong...*

369 Nasra: *What do you mean?*

370 Munira: *I don't know, but the verb you write... thought... I think it is wrong.*

371 Nasra: *why you think it wrong? It is the past so we write thought... past for think.*

372 Munira: *yes, but we have should... so I think we write think.*

373 Nasra: *if we write like this, it will be in the present.*

374 Munira: *yes you are right... I don't know... we leave it like this... should thought.*

In Excerpt 7.10, Nasra and Munira had a problem with a verb tense (think). Although Munira anticipated that the verb tense was incorrect, she could not convince her colleague of why it was wrong. In addition, learners paid attention to problems relevant to the use of articles,

either definite or indefinite but mostly focused on the definite article. An example of a negotiation of the use of definite article (the) is given in Excerpt 7.11.

Excerpt 7.11: An example of negotiation on the use of the definite article (the)

62 Fatma: *and parents should watch their children... parents or the parents?*

63 Ruqaya: *I think the parents... maybe but yes I think the parents.*

64 Fatma: *maybe parents... why you think the parents.*

65 Ruqaya: *because we said parents before... maybe I don't know.*

66 Fatma: *yes I think you are right.*

This exchange displays an instance where learners discuss whether they should use the definite article *the*. Although both learners were unsure about the correct usage of *the* in this case, they eventually managed to reach a correct resolution, thanks to pooling of their resources.

Use of pronouns was also focused during pair interactions. There were multiple instances where pairs of learners had a problem with the use of pronouns. Excerpt 7.12 illustrates an instance in which a pair had a problem with using the pronoun (it).

Excerpt 7.12: An example of negotiation on the use a pronoun

331 Salem: *students use technology every day. They use them in everything.*

332 Bader: *wait... why you said them?*

333 Salem: *why not? You think it's wrong?*

334 Bader: *yes it is wrong... look here... Technology is singular.*

335 Salem: *no it is not singular... it is plural because we have different technology.*

336 Bader: *yes but we technology is singular because it is not countable.*

337 Salem: *are you sure?*

338 Bader: *yes I'm sure... not countable like money and rice and water... so we use it.*

339 Salem: *ok, I will write it not them ... but I think them is also correct.*

340 Bader: *no no it is wrong.*

Excerpt 7.12 shows that this exchange was focused on the correct use of a pronoun (it).

Although Bader convincingly explained to Salem that the use of them to refer to technology is incorrect, it seems that Salem was not quite convinced even after he used the correct pronoun. Finally, learners produced F-LRE focusing on sentence structure. This type of F-LRE received the second most attention (30.77%) after the verb form/ tense episode. In sentence structure F-LRE, learners produced exchanges, where they negotiated syntactical structures of different types of sentences as exemplified in Excerpt 7.13 below.

Excerpt 7.13: An example of an exchange on sentence syntactical structure

256 Maryam: *Successful entrepreneurs try to improve their business, their money is sometimes not enough.*

266 Asma: *good... but I think this sentence is not correct.*

267 Maryam: *why? Where is wrong?*

268 Asma: *here you write their money is sometimes not enough after business. If you read it, I think something is not... I think it is not correct...maybe.*

269 Maryam: *I think it is correct because I used comma.*

270 Asma: *if we add but I think it is more correct.*

271 Maryam: *yes yes... I think we should write but.*

The above exchange illustrates an example of a run-on sentence. Although Asma could not supply the correct terminology for the incorrect syntactical structure, she however managed to point the mistake out and provided a solution to the problem.

7.2.3 Mechanics- Language related episodes (M-LREs)

The third type of LREs which pairs produced during interaction is Mechanics-LREs (M-LREs). M-LREs received the least amount of attention during pair interactions (10.05 %) in comparison to the other LREs. Figure 7.5 shows the three types of M-LREs that were produced during pair exchanges.

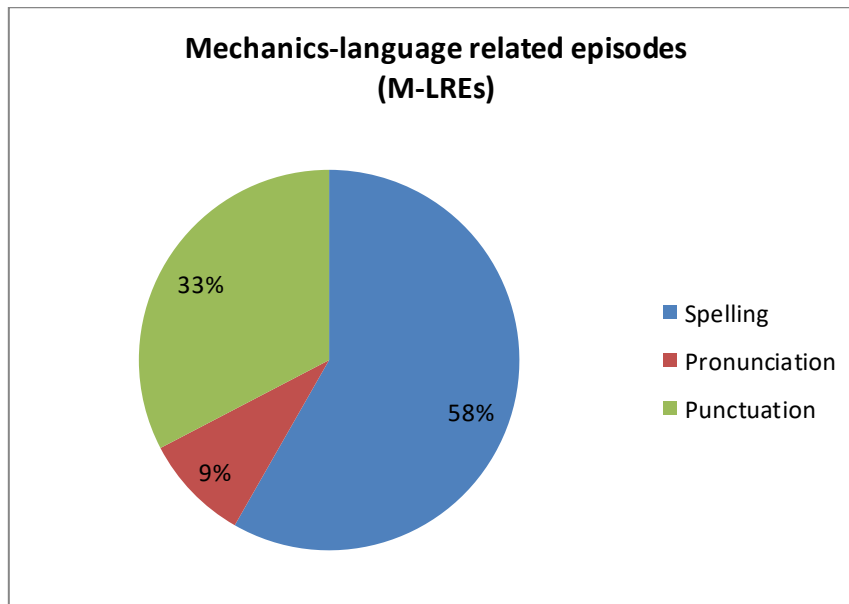


Figure 7.5 Mechanics-language related episodes

Figure 8.5 shows that problems with spelling received the most attention, followed by punctuation and finally pronunciation. Excerpt 7.14 below provides an account of one M-LRE in which the learners discussed spelling:

Excerpt 7.14: An example of a spelling M-LRE

203 Zahra: *high school studying.... Is it one word high school?*

204 Aysha: *no no no it is not one word.*

205 Zahra: *so two word?*

206 Aysha: *Yes.*

The above exchange was rather short, composed of only four turns. Though the discussion was brief, it resulted in a correct resolution of the episode. On the other hand, Excerpt 7.15 provides an example where one pair negotiated the pronunciation of the word (entrepreneur).

Excerpt 7.15: An example of a pronunciation M-LRE

58 Noor: *this word is very difficult to say...how we say it?*

59 Sheikha: *you mean entrepreneur?*

60 Noor: *yes yes... very difficult I can't say it! How you say it?*

61 Sheikha: *ok let break the word in small pieces... this way it will be easy to say... like this entre-pren-eur... entrepreneur*

62 Noor: *entren pren or*

The above exchange illustrates how this pair collaborated to learn the pronunciation of a new word. With the strategy provided by Sheikha, Noor was fairly successful in pronouncing the new word correctly. The final type of M-LREs is punctuation, which received the second

most attention after spelling. We can see in the Excerpt 7.16 an account by one pair, where they discussed the correct use of possessive apostrophe.

Excerpt 7.16: An example of an exchange on a punctuation M-LRE

424 Manal: *When people use the smart phone, it can affect their mind. Also, if they let their children use too much, it will make their children health weak.*

423 Wisal: *I think we add comma [she meant an apostrophe] after children then s... because we talk about the health of children.*

The above brief exchange resulted in a successful resolution of a punctuation problem. Wisal did not simply provide the correct answer. She also provided the grammatical rule to explain her contribution.

7.3 Nature and outcome of LRE resolution

Pair interactions were also coded for the nature of resolutions of problems relevant to LREs, following the work of Swain (1998), Leiser (2004) and Storch (2007). The analysis showed that learners did not always resolve problems collaboratively. On the contrary, there were instances where one learner refused or ignored the other student's contribution. Table 7.3 summarizes the number of episodes which were resolved in an interactive fashion by the pairs of participants in the study.

Table 7.3 *Nature of LREs resolutions (n=20)*

Type of Episode	Total no. of LREs	No. of LREs interactively resolved	%	
	Lexis choice (verb)	2150	1875	87.21
	Lexis choice (noun)	1570	1160	73.88
L-LREs	Phrase choice	320	267	83.43
	Lexis meaning	1600	1450	90.63
	Verb form and tense	2050	1856	90.96
	Article	600	495	82.50
F-LREs	Pronouns	700	632	90.29
	Prepositions	327	210	64.22
	Sentence structure	1523	984	64.61
	Spelling	705	680	96.45
M-LREs	Pronunciation	110	84	76.36
	Punctuation	395	345	87.34
Total/ average percentage		12050	10038	83.30

As can be seen in Table 7.3, learners demonstrated variability in the way they resolved LREs. Overall, a high proportion of episodes was resolved interactively (83.30% overall). As per each main type of LREs, the highest average number of episodes which were resolved interactively was in M-LREs (86.72 %), followed by L-LREs (83.79 %), and finally F-LREs (78.52 %). Problems associated with prepositions and sentence structure in F-LREs were the fewest in terms of interactive resolution, with only about 64 % of episodes resolved interactively. When episodes are not resolved interactively, it is either due to the lack of involvement from one of the individual learners in the pair, or because one learner attempted to contribute a solution individually without consulting the other learner. Excerpt 7.17

provides an instance, where a LRE was not resolved interactively due to lack of involvement from one of the learners.

Excerpt 7.17: An example of an LRE episode not resolved interactively

134 Salem: what is the meaning of immaculate?

135 Bader: I'm busy...

136 Salem: do you know, Bader?

137 Bader:....

138 Salem: ok, I think I will write an easy word.

The above example illustrates clearly the lack of involvement from the part of Bader, who was probably busy with a different task (line 135) when he was approached by his colleague. Bader was totally silent (line 137) after the second time Salem requested assistance with the meaning of a new lexis. It seems that this LRE was eventually not resolved, as Salem (line 138) decided to use an easier word instead of the new word.

Furthermore, the number of LREs resolved interactively was counted as per pairs, following the practice of Storch (2007). It should be reminded that learners were required to collaborate with the same partners for the entire instruction period. The analysis, given in Table 7.4, showed that there were variations between pairs in terms of the number of LREs that were addressed interactively.

Table 7.4 *LREs resolved interactively across pairs (n=20)*

Pair*	Total no. of LREs	No. of LREs interactively resolved	%
Fatma & Ruqaya	1090	956	87
Maryam & Asma	750	650	44
Salem & Bader	560	465	43
Zahra & Aysha	1056	840	79
Basma & Aamna	1222	1190	97
Mohammed & Said	1506	1186	98
Noor & Sheikha	1449	1165	93
Manal & Wisal	1408	1178	97
Omar & Nasser	1389	1200	86
Nasra & Munira	1220	1210	99

*Pseudonyms

As displayed in Table 7.4, there was considerable variation between pairs with respect to the number of LREs that were resolved interactively. Whereas Nasra and Munira resolved 99 % of LREs interactively, Zahra and Aysha resolved only 79 % of LREs interactively. In contrast, approximately half of LREs were resolved non-interactively by Maryam and Asma (44 %), and the smallest number was produced by Salem and Bader, who only managed to solve 43 % of LREs interactively. In both cases, there is a positive relationship between the total number of LREs produced during pair interaction and the number of LREs resolved interactively. Excerpt 17.17 above shows how Salem and Bader formed decisions regarding resolving LREs.

Furthermore, LREs were also coded for the outcome of resolution, following the work of Leeser (2004) and Swain (1998). Outcome of resolution was coded for acceptable/ correct, unacceptable/ incorrect, or unresolved. Table 7.5 summarises the results in terms of the outcome of resolution for each type of LRE.

Table 7.5 *Outcome of LREs resolution*

Type of LRE	Type of outcome					
	Correct resolution		Incorrect resolution		No resolution	
	No.	%	No.	%	No.	%
L-LREs	4304	76.31	997	17.68	339	6.01
F-LREs	3686	70.88	1302	25.04	212	4.08
M-LREs	1180	97.52	97	8.02	13	1.07

Table 7.5 shows the number of LREs for each type of outcome. It also provides the percentage which each type constitutes out of the total number in each type of LREs. It can be clearly seen that the percentages of correctly resolved LREs were much higher than those which were incorrectly resolved and the LREs with no resolution. The highest proportion of LREs with correct resolution was in the M-LREs, followed by L-LREs, and finally F-LREs where only 70.88% of episodes were resolved correctly. Moreover, the highest number of incorrectly resolved episodes was in F-LREs, followed by L-LREs, and then M-LREs with the smallest percentage of episodes which were resolved incorrectly. However, there were more L-LREs episodes left with no resolution than F-LREs and only a very small percentage (1.07%) in M-LREs.

7.4 Patterns of interaction

Pair dialogues were analysed for patterns of interaction, following Storch (2002a). According to Storch's model, there are four distinct patterns that could be formed in a particular dyadic interaction: collaborative; dominant-dominant; dominant-passive; and expert-novice. These patterns were coined based on the "role relationship" maintained by individual learners in a pair in terms of equality and mutuality (Damon & Phelps, 1989). Equality describes the level of authority assumed by individual learners during an exchange. More specifically, equality is not achieved through equal contribution in terms of producing an equal number of turns by each learner. Instead, it refers to maintaining a similar level of control over the task (van Lier, 1996). On the other hand, mutuality denotes the degree of mutual engagement toward the other learner's contribution. A high level of mutuality occurs when feedback is given reciprocally and ideas are shared between the learners in a pair (Damon & Phelps, 1989).

According to Storch's model, patterns of interactions vary as a result of the interplay between the degrees of equality and mutuality. Storch (2002b) maintains that it is more helpful to view this intersection as a continuum instead of a fixed point, and thus the equality- mutuality distribution should not be thought of as an accurate representation of every single contribution by individual learners in a dyadic interaction. This model is represented in Table 7.6 below.

Table 7.6 *A model of interaction patterns (Modified from Storch, 2002a)*

Pattern of interaction	Equality	Mutuality
Collaborative	High	High
Dominant-Dominant	High	Low
Dominant-Passive	Low	Low
Expert-Novice	Low	High

Thus, in the collaborative pattern of dyadic interaction, there is a high level of equality as well as a high level of mutuality, which results in equal control over the task and a high level of engagement with each other's contributions. Pairs maintaining a collaborative pattern of interaction are usually willing to offer their views and feedback and accept their partners' point of view. Also, collaborative pairs tend to work jointly during all part of a written task, starting from outlining up until editing their finished work. Excerpt 7.18 represents a collaborative interaction, where both learners maintained equal contribution in terms of offering suggestions and accepting feedback.

Excerpt 7.18: A collaborative pattern of interaction

165 Mohammed: do we say succeeded or succeed after didn't?

166 Said: I think we say succeed?

177 Mohammed: but we have past... didn't?

178 Said: yes, but after did or didn't we use present.

179 Mohammed: are you sure?

180 Said: yes, I'm sure.

181 Mohammed: ok, I will write succeed.

We can see in the above exchange that Moahmmed and Said successfully resolved a F-LRE perhaps thanks to the collaborative relationship they maintained during joint writing. In the dominant-dominant pattern, pair interaction is characterised by a high level of equality, but a low level of mutuality. This means that although both learners may contribute equally during a collaborative writing task, their engagement with one another's contributions is very low. This type of interaction leads to a high degree of disagreement and inability to reach a

consensus. The following exchange (Excerpt 7.19) illustrates an example of a dominant-dominant pattern of interaction.

Excerpt 7.19: A dominant-dominant pattern of interaction

202 Maryam: ... so I write: successful people use the technology to improve business.

203 Asma: No, not the technology... only technology... no the.

204 Maryam: no no we use the with technology always.

205 Asma: that is not correct.

206 Maryam: correct, I'm sure.

207 Asma: I don't agree with you.

Excerpt 7.19 shows that Maryam and Asma maintained a dominant-dominant pattern of dyad interaction. This is evident as there was almost equal contribution (equality) from both learners, yet there was at the same time no engagement with each other's contributions (low mutuality) and thus was difficult to agree on a resolution to the LRE. The third pattern of interaction is labeled dominant-passive. In this pattern, one of the learners, who is usually the more proficient, maintains an authoritarian position and tends to appropriate the task; whereas the other learner, who is usually less proficient, assumes a passive role. Negotiation and exchange of feedback are very low in this type due to the little engagement from the part of the less proficient learner, whose role is usually limited to agreeing to whatever the more proficient learner suggests or worse not offering any feedback. Excerpt 7.20 demonstrates an example of a dominant-passive interaction.

Excerpt 7.20: A dominant-passive pattern of interaction

345 Salem: ok, write: Omani entrepreneurs use technology...

346 Bader: *ok*

347 Salem: *no no, not that ... maybe not this... write: Omani entrepreneurs can be successful when they use technology.*

348 Bader: *ok*

In the exchange above, it can be clearly seen that Bader assumed a passive role by simply agreeing to what Salem was suggesting without offering any support or negotiation. The last type is described as expert-novice, which is featured by a low level of equality, but a high level of mutuality. In this pattern, unlike the dominant-passive pattern, the more proficient learner (expert) always engages with and supports the less proficient classmate so as to contribute to the task (Storch, 2002a). In Excerpt 7.21, we can find an instance where two learners supported one another, although they probably had unequal proficiency levels.

Excerpt 7.21: An expert-novice pattern of interaction

114 Aysha: *... ok write: when people go to university, they can have awareness of the problems in the world.*

115 Zahra: *what is mean awareness?*

116 Aysha: *you don't know?*

117 Zahra: *no.*

118 Aysha: *ok, awareness means they understand or know something... or they people have understanding... or umm... maybe information about something.*

119 Zahra: *aah... ok... yes... I know now*

120 Aysha: *ok good...new word for you.*

In this interaction, the expert (Aysha) is supporting her less proficient classmate (Zahra) and at the same time she is encouraging Zahra to contribute actively in the interaction. We can see that Aysha complemented Zahra for learning a new word, which may be seen as a way of encouragement for Zahra to ask questions about things she did not know.

Table 7.7 summarises the patterns of interactions which were formed by pairs of learners in the current study during an eight-week instruction intervention. It should be noted here that these results describe the general patterns which pairs maintained throughout the instruction program. There was some variation during interactions, but the analysis of transcribed audio-recorded interactions revealed that the pairs maintained roughly similar relationships during the instructional intervention program. It is also worth noting that the participants worked in the same pairs throughout the instruction period. Self-selected pairs were in favour of collaborating with the same classmates throughout the instructional intervention. I decided not to influence the learners' preference especially that the instructional strategy of collaborative writing was novel in this context.

Table 7.7 *Patterns of interactions formed by pairs in the study*

Pair	Pattern of interaction	Pair	Pattern of interaction
Fatma & Ruqaya	Expert-Novice	Mohammed & Said	Collaborative
Maryam & Asma	Dominant-Dominant	Noor & Sheikha	Collaborative
Salem & Bader	Dominant-Passive	Manal & Wisal	Collaborative
Zahra & Aysha	Expert-Novice	Omar & Nasser	Expert-Novice
Basma & Aamna	Collaborative	Nasra & Munira	Collaborative

Table 7.7 shows that the participants maintained different patterns of interaction while collaborating. The analysis indicated that the most common pattern of dyadic interaction was the collaborative (50 %), followed by expert-novice (30 %). Dominant-passive and dominant-

dominant were the least common patterns, with each forming (10 %) only of the total patterns.

7.5 Summary

This chapter presented an analysis of pair interaction to provide answer to the RQ6. The first part of the chapter presented analysis of pair talk in terms of language related episodes (LREs), while the second part provided the results of analysis in terms of patterns of interaction. In the analysis of LREs, three types of LREs were identified; namely Lexis-LREs, Form-LREs, and Mechanics-LREs. For each type of LREs, pair interactions were analysed for the frequency of each type in pair dialogues followed by exemplar excerpts that were taken from pairs' transcribed interactions. The results showed that Lexis-LREs were the most frequently negotiated type of LRE; whereas the Mechanics-LREs received the least attention. LREs were also analysed for the nature of resolution as well as the outcome of resolution. The results revealed that a high percentage of LREs were resolved interactively. In terms of the outcome of resolution, the percentage of LREs which were resolved correctly was higher than the percentage of incorrectly resolved or unresolved LREs. In terms of interaction patterns, learners roughly maintained similar patterns throughout the instruction program. The collaborative pattern of dyadic interaction was the most common, although constituting just 50 % of the total patterns. Dominant-dominant and dominant-passive were the least recurrent, each forming only 10 % out of the total interaction patterns.

CHAPTER EIGHT

DISCUSSION

8.0 Overview

This study sought to compare individual versus pair written performance of tertiary EFL learners after exposure to genre-based writing instruction in the expository essay genre. The first three research questions addressed three discourse features of the expository essay genre; namely text content, text organisation, and reduction of narrativity, while the fourth and fifth research questions addressed changes in linguistic characteristics in terms of lexical complexity and syntactic complexity. How learner collaboration and interaction may assist L2 pairs in completing a written task was addressed in the sixth question. The findings revealed that the experimental groups differed on lexical and syntactic complexity only. The findings also indicated that both experimental groups outperformed the Control group at text content, text organisation, reduction of narrativity, and to a lesser extent at lexical complexity and syntactic complexity. In what follows, I will attempt to discuss the findings of the current study. First, I will discuss the key findings in the discourse level variables. Second, I will discuss findings in the language-level variables. Finally, I will explore the facilitative role of learners' collaboration and interaction in completing a written task in terms of Language Related Episodes (LREs), followed by a brief summary of the chapter.

8.1 Instructional efficacy at discourse level

8.1.1 Summary of key findings

The first three research questions investigated writing change at discourse level, in terms of text content, text organisation, and reduction of narrativity.

Research Question 1 examined the effectiveness of the instructional intervention on improving essay content. The results of within-group tests revealed that the Individual group significantly improved only between the pretest and the immediate posttest with a medium effect size. Furthermore, the Pair group made a statistically significant improvement from the pretest to the immediate posttest and between the immediate posttest and the delayed posttest, with a large effect size at both testing times. In contrast, the Control group did not make any significant improvement between the pretest and any of the posttests, suggesting that the traditional writing instruction in this group did not help learners make any statistically significant improvement at the three testing times. On the other hand, between-group comparisons (obtained by ANCOVA) indicated that, on the immediate posttest, both experimental groups outperformed the Control group, but there was no statistically significant difference between them. On the delayed posttest, the results remained unchanged: the experimental groups were significantly higher than the Control group, but no statistically significant difference was found between the experimental groups themselves.

Research Question 2 investigated the impact of the instructional intervention on essay organisation. The results of within-group tests showed that the Individual group improved significantly from the pretest to the immediate posttest with a large effect size, and as well improved with a large effect size between the pretest and the delayed posttest. Furthermore, the Pair group made a statistically significant improvement between the pretest and the immediate posttest and between the immediate posttest and the delayed posttest, with a large effect size at both testing times. This result implies that the instructional intervention was highly effective in terms of improving text organisation when learners were instructed to write collaboratively. By contrast, the Control group did not make any significant improvement between the pretest and any of the posttests. On the other hand, between-group comparisons indicated that both experimental groups outperformed the Control group at both

posttests, but there was no significant difference was found between the treatment groups themselves.

Research Question 3 investigated the efficacy of the instructional treatment on reducing text narrativity. The results of within-group tests showed that the Individual and Pair groups improved in the reduction of narrativity between the pretest and the immediate posttest with a small effect size. The Individual group also made a significant improvement between the immediate posttest and delayed posttest. By contrast, the Control group did not make any significant improvement between the pretest and any of the posttests. Furthermore, between-group comparisons indicated that the experimental groups outperformed the Control group in the reduction of text narrativity at immediate posttest and delayed posttest. However, there was no statistically significant difference between the experimental groups. These results seem to suggest that the instructional intervention was, to some extent, more effective than the traditional instructional approach, as participants in the intervention groups wrote essays that were reduced in narrativity. Thus, they were more successful in demonstrating genre awareness of the expository essay genre, which is characterised by an increased use of formal written expression.

The analysis of descriptive data for text content, text organisation, and reduction of narrativity showed that the standard deviation (SD) scores in the experimental as well as control groups decreased steadily at the three testing times. Since SD describes variability or distribution of scores around the mean (M) in a given data set (Field, 2013), the drop in SD scores implies that the distribution of scores became closer to the mean over time, suggesting that learners in the three groups demonstrated higher conformity as result of an instructional effect. Although it was expected that learners in the experimental groups would perform with less variability as a result of the effect of the intervention, learners in the Control group were expected to demonstrate less conformity over time since they had no access to the treatment.

A possible explanation of this result would be that writing instruction in the Control group was somewhat beneficial to learners, despite not reaching any significant improvement over time. Despite the fact that the notion of genre was not emphasised within the traditional writing instruction in which the Control group was instructed, this does not necessarily imply that instruction on improving writing at discourse level was fully absent. However, the fact that the Control group did not make any significant improvements over time and was significantly lower than the experimental groups at both immediate posttests could be interpreted as an evidence that the instructional intervention was more effective in comparison to the traditional writing instruction in terms of improving learners essays in terms of text content, text organisation, and reduction of narrativity.

8.1.2 Potential of instructional intervention at discourse level

Overall, the results are in line with previous research on the potential pedagogical advantage of genre-based writing pedagogies (e.g., Cheng, 2006,2007; Hyland, 2003, 2004, 2007; Hyon, 2001, 2002; Johns, 2002, 2003, 2008; Paltridge, 2001, 2002, 2004; Tardy, 2005, 2006, 2009). The principal value of genre-based writing approach is that the notion of genre helps L2 writers understand the relationship between the communicative purpose of text, audience, and Linguistics features. Under genre-based writing pedagogy, learners gradually learn to respond to social situations in which they write texts for communicative purposes with specific readers in mind (Clark, 2012; Devitt, 2004; Paltridge, 2013; Swales, 1990). This contextual sensitivity is thought to have potentially assisted learners in deciding the appropriateness and relevance of the content of their texts, taking into consideration crucial elements such as audience and purpose of writing (Hyland, 2004). This study supports previous classroom-based research by Pessoa, Mitchell, and Miller (2018) who found that explicit instruction in the Systemic Functional Linguistics (SFL) genre framework was largely beneficial to advanced and especially to less proficient learners with respect to

improving students' skills of writing the argument genre. The two texts below were written at immediate posttest, where Text 1 was written by a participant in the Control group, while Text 2 was written by a student in the Pair group. In both texts, learners wrote about the effect of smart phones on college students' performance.

Text 1: A text written by a learner in the Control group at the immediate posttest

*“I want to talk about smart phones. The smart phones one of important things for life in all people. So of course they have positive and negative about the students in college. **I think that it important very important because the students need it.** For example, the smart phone help the students for anything in study, but sometimes the students using the smartphones for using not good and the students using phones in class. Sometimes the teacher is angry. Students don't listened to him. But some students use the phone good for their because the college it very far for their county. But the study in college is important. The smart phone have a positive and negative and students use them good or bad. New technology is now everywhere. Not only smart phones. Students can use the internet in laptop for study and other things. But the smart phone is also important for study and success. Maybe the student also they use smart phone for helping other students for study if something difficult.*

So a lot of good and bad things in the smart phone for college students”.

We can see from Text 1 that this text is problematic. The **thesis statement** is not well stated since it provides the reader with no precise position of the writer. Furthermore, the topic sentence does not provide a particular focus which will then be developed in the remainder of the paragraph. Additionally, the student seems to move abruptly from one supporting detail to the next before providing sufficient details for each point. The text also contains irrelevant content, which makes the texts less interesting to read. There is lack of clear understanding of purpose and audience relevant to the expository genre. In terms of text organisation, we can say that Text 1 lacks proficient organisation. The schematic structure of the essay was under developed due to a lack of substantiation especially in the body and conclusion parts. There is also a lack of appropriate use of transition words and there is no clear evidence of connection

or coherence between the paragraphs in the essay. Consequently, the text is not interesting to read due to repetition and insufficient detailing

Text 2: A text written by a learner in the Pair group at the immediate posttest

“Technology is improving nowadays. For example, a lot of students use smart phones smart phones. I think smart phones are good for students for some reasons.

First, the college student can call his friends and parents for different reasons. If he has problem with study he can call the classmates. If he has a problem outside college he can call his parents to problem to help stop it. Second, smart phone are good to find new information in the web. Student maybe want study more get information he can use his smartphone to get new things from the net outside the book. This will help his increase his marks a lot. Third, the smart phone is good for student to buy things from the net. They don't need to buy things from the market. They can find in Amazon or instagram. The price of the item is cheap and quality very good. Maybe also they can find friends in the net. Therefore, they can talk and chat. For example, someone from America he speak English. The student speak and the English will be good after that.

In conclusion, I think the smart phone has a lot of good things and maybe some things bad but more good points than bad things. Students should use them a lot for study”.

The content of Text 2 is written more effectively than the first for a number of reasons. First, the improvement of **thesis** in the second excerpt is more thorough and logical. Second, there is less repetition and more relevant details. The student focused on each point succinctly, without providing unnecessary details. The writing is more interesting to read as a result of better improvement of the thesis and absence of repetition and irrelevant information. As regards text organisation, the improvement of thesis in the second excerpt is more thorough and logical. The main parts of the essay (i.e., introduction, body, and conclusion) are adequately substantiative. Unlike the essay in Text 1, this essay demonstrates a more effective use of transition words which contributed to a better overall cohesion between the paragraphs in the essay. It is argued that an effective use of connectives can signal improved quality of writing (Cameron et al., 1995).

Furthermore, the study confirms the results obtained by Gómez Burgos (2017) whose study concluded that genre-based writing instruction assisted EFL learners to construct more effective expository essays in terms of text organisation. Additionally, the results in this study corroborate findings obtained by previous studies (e.g., Carter, et al., 2004; Freedman & Adam, 1996) that undergraduate learners develop knowledge of genre as a result of exposure and analysis of prototypical texts. The results seem to suggest that instructing participants to deconstruct and analyse model expository texts allowed them to gradually improve knowledge of the target genre, which was reflected in their written texts. The use of genre analysis sheets to address the interaction among the tripartite aspects of register (i.e., field, tenor, mode) is believed to have assisted learners in practically deciding the relevance of information which was eventually going to form the content of their essays. *Practice* is the key word here; since it is often less helpful to learners, especially those with limited proficiency, to be instructed only verbally that they should include relevant content only in their writing. How would a learner writing in an unfamiliar genre be able to transform theoretical instruction on content's relevance and appropriacy into actual writing if he or she is not provided ample practice on analysis of model texts? Therefore, writing instruction saturated in exposure to and analysis of prototypical texts is perhaps a more effective pedagogy, especially when novice EFL student writers are involved.

With respect to reduction of narrativity, there is extremely limited research that has employed the index of narrativity to investigate L2 writing change and thus comparison of results with other studies is difficult. Generally, because formality of expression is a central feature of expository writing, an effective expository essay should demonstrate low narrativity and an increase in formality. Formality is considered a global dimension of textual variation (Biber, 1988; Heylighen & Dewaele, 2002). Graesser et al. (2014) operationalise formality in terms of a group of factors. One of these factors is low narrativity, which is usually associated with

non-fictional genre. Narrativity is a robust index that distinguishes genre and has been “proven to be [a] major predictor... of text difficulty” (Graesser et al., 2014, p.225).

Narrative texts are easier to read than informational texts such as expository essays (Graesser, McNamara, & Kulikowich, 2011; Graesser, Olde, & Klettke, 2002). However, research has found that L2 essay quality is associated with text difficulty- with texts that demonstrate low narrativity (Crossley & McNamara, 2012). Thus, it could be argued here that genre-based instructional intervention in the experimental was more effective (although with a small effect size) than the traditional writing instruction in the Control group, since both experimental groups produced texts that were characterized with higher reduction of narrativity and thus higher writing quality. The better performance in the intervention groups could be attributed to the notion that genre-based instruction could have assisted learners’ in employing appropriate rhetorical structure and linguistic choices pertinent to the exposition genre more effectively. This could be seen in Text 3, which was written by a learner in the Control group and was rated 67 % for narrativity. Text 4, on the other hand, was produced by a learner who was instructed in the Individual group with a rating of 63 % for narrativity. It could be seen that Text 4 illustrates less use of spoken English and more formal language. Text 3, on the other hand, is higher in narrativity as it contains higher use of narrative and spoken language.

Text 3: A text written by a learner in the Control group with a higher narrativity score

Because technology, we are living in nice business place, so we should get rid of its traditional ways and start this technology. Nowadays it is easy for people like to buy or sell something. People can use some kind of online websites and buy whatever they want in a blink of an eye.

In Oman, I think technology is not everywhere. But I can say it changed a lot of things in the country, example Omani’s thinking. Like in the past, they cared only about getting money but now it is way more than that. Like for example, technology had made people think what the real requirements are for a job is it only about being physically strong. Or it is about having the mind ability to develop and create. Lately, technology had been used almost in every

company or in all business in the country. For instance, Oman oil, AlNaba clinic and Tanmia. A lot of people think that technology changed Oman for best than the past. So maybe the technology will open doors for Oman in future.

All in all, I think technology is one of the greatest inventions the world did and it will continue improve forever”.

Text 4: A text written by a learner in the Individual group with lower narrativity

“Technology is so important in this life. All the people using technology in this time especially in education and business and many other things. So no one in this time can abandon technology. Technology made Oman a good country.

In Oman technology is changing more things. For example, business technology develops business in Oman become active and better. By technology Oman opened a lot of ports such as Sohar Port for business. And technology can communicate with the world you when you using technology in business in very easy and you can sell and buy are in the home. We should not go to other countries, technology can develop business because some reasons. We are now in the First part of innovation cycle where large industries are now full with technology. In this way we will take employment, real estate, food, and others as examples. Many companies work in Oman need technology for future to be strong. For example, Oman company of the oil use a lot of technology. The new technology will help the company to be excellent and maybe get more money.

In my opinion, some people like business technology because it is easy to use and buying and have anything. My idea for business technology increasing specialized programs”.

A further explanation of the results in the discourse-level variables is made in light of the theoretical perspectives which support the use of collaborative writing. The greater improvement that occurred in the experimental groups could be explained in light of learner interaction and sociocultural frameworks. Scaffolding lends support to the findings in this study. Participants in the experimental groups received support from the teacher in the case of the individual group. In the Pair group, learners received support from the teacher as well as peers. Donato (1994) and other L2 researchers (e.g., Hanjani & Li, 2014; Swain & Lapkin, 2001; Watanabe & Swain, 2008) have argued that scaffolding is a bidirectional process (expert- novice and novice-novice) in which not only the teacher may scaffold learners, but even learners could support one another’s learning. In terms of learner interaction, it is

possible that noticing of input during learner-learner interaction could have played a part in improving performance in the Pair group as compared to the Control group.

8.1.3 Reflection of learner collaboration in individual writing

The fact that there was no significant difference between the Individual and Pair group is an interesting result. This result implies that the advantage of writing in collaboration may not necessarily be reflected in writing when learners are tested individually. This result could be understood in light of the following considerations. First, the variation in the dynamics of pair interaction could have possibly moderated the effect of writing collaboration during the instruction. Storch (2002a, 2002b) discussed four distinct patterns of interaction that may take place during an event of collaborative writing. Two of these patterns, namely dominant-dominant and dominant-passive, are particularly relevant to this discussion. These two patterns were found to jointly form 20 % of the total number of interaction patterns. These two patterns can be described as counterproductive in terms of allowing learners to benefit from collaboration during writing. Some of the pairs formed a dominant-dominant pattern of interaction. Although both learners may contribute to the interaction, their performance is “marked by a high level of disagreement and inability to reach consensus” (Storch, 2002a, p.128), which consequently leads to “very little engagement with each other’s contribution” (p.129). For instance, Maryam and Asma formed a dominant-dominant pattern of interaction. This pair managed to resolve interactively 44 % only of the total LREs. On the other hand, there were pairs who formed a dominant-passive pattern of collaboration. In this pattern of dyadic interaction, one learner- who is usually more proficient- maintains an authoritarian stance; whereas the other- who is usually less proficient - assumes a passive role. For example, Salem and Bader maintained a dominant-passive pattern of interaction and managed to solve interactively only 43 % of LREs. It should be noted that learner differences could still exist even inside groups of learners who were thought to obtain a similar level of

proficiency, which is a concern that has been raised by previous researchers (e.g., Neumann & McDonough, 2015; Storch, 2013; Swales & Lapkin, 1998). Because of the disparity in proficiency level in this type of interaction, there is usually “little negotiation in such pattern of interaction, because there are few contributions or challenges forthcoming from the more passive participant” (Storch, 2002a, p. 129). This implies that not every instance of pair collaboration could be beneficial to learners, which is an observation that has been made by previous researchers (Storch, 2013).

Second, it is likely that learners in the Pair group did not necessarily incorporate their peers’ suggestions even if they were correct. This is because learners usually consider their peers’ feedback to be inferior to that of the teacher and that peers have insufficient knowledge of language (Nelson & Murphy, 1993; Storch, 2005; Neumann & McDonough, 2015).

Moreover, individual learners may vary in the way they perceive collaborative work. More specifically, some learners do not prefer to work with another learner and thus cannot be forced or expected to write jointly with another student. This is evident in the current study, as only half (50%) of the pairs formed a collaborative interaction pattern that is characterised by high willingness from both learners to work jointly and offer views and feedback. As such, this leads us to argue that the issue of selecting peers is problematic in this type of research and is never straightforward. A number of previous researchers such as Storch (2005) and Storch and Wigglesworth (2007) permitted participants to choose to work either individually or in pairs; whereas others (e.g., Dobao, 2012, 2014; Dobao & Blum, 2013; Shehadeh, 2011; Wigglesworth & Storch, 2009) required all students to perform in pairs. The present study followed the practice of the second group of researchers who had all learners write in pairs during the instruction. This is because the majority of learners expressed their willingness to try a novel approach of learning writing. Also, learners in the Pair group were

provided with sufficient instruction in collaborative writing, which was expected to benefit the learners.

Yet this positive effect of instruction was not evident in texts that were written by pairs when they were tested individually. Hence, it may be argued that the benefit of collaborative writing is manifest only when learners are instructed in pairs and tested in pairs as well. This hypothesis has been proven by previous researchers such as Wigglesworth and Storch (2009), Storch (2005), and Storch and Wigglesworth (2007). However, from an ecological viewpoint, learners' writing proficiency is usually assessed on individual basis. Learners in the context where this study was conducted are usually tested individually. Thus, it would be of no practical value to assess learners' writing proficiency in pairs when in reality they are almost always tested on an individual basis. Add to this that some pairs of learners did form interaction patterns that may not be conducive to the growth of individual student writers (i.e., dominant-dominant or dominant-passive). The role of interaction pattern in either supporting or inhibiting learner's improvement should not be underestimated. Empirical research by Watanabe and Swain (2007) found that "the patterns of pair interaction greatly influenced the frequency of LREs and post-test performance" (p.121). Similarly, the analysis of pair interaction in this study revealed that pairs who formed interaction patterns that involve high willingness and interaction in terms of negotiation and receiving feedback produced much higher frequencies of interactively and correctly resolved LREs. Noor and Sheikha, for instance, worked as a collaborative pair and as a result resolved 97 % of LREs interactively.

In brief, the results have revealed that GBWI and collaborative writing have positively influenced the improvement of discourse aspects. The experimental groups were equal in performance, yet they both outperformed the Control group. Finally, the findings indicated

that tertiary EFL learners do benefit from instruction in collaborative writing, but may not necessarily transfer the positive impact to individual testing situations.

8.2 Instructional efficacy at linguistic levels

8.2.1 Summary of key findings for Lexical complexity

Research Question 4 investigated the effectiveness of the instructional intervention on improving lexical complexity as measured by MTLTD and reduction of word Concreteness. MTLTD and decrease of concreteness respectively measure lexical diversity and lexical sophistication, which are two crucial aspects that should be considered when measuring change in lexical proficiency (Jarvis, 2013).

The results of within-group tests for MTLTD revealed that the MTLTD scores for the Individual group did not improve significantly from the pretest to the immediate posttest. However, there was a statistically significant difference between the pretest and delayed posttest with a large effect size, and as well a statistically significant difference between the immediate posttest and delayed posttest with a medium effect size. This suggests that learners in the Individual group sustained improvement in MTLTD and thus produced texts that were lexically more diverse than those which were written before intervention. In contrast, scores of MTLTD in the Pair and Control groups did not statistically improve between the pretest and any of the posttests. On the other hand, between-group comparisons indicated that, on the immediate posttest, there was no statistically significant difference between the experimental groups and Control group. On the delayed posttest, the Individual group was significantly higher than the Pair and Control groups, while the Pair group was equal to the Control group. These results suggest that the instructional intervention was more effective than the traditional instructional approach only when learners were instructed to write individually.

In terms of the magnitude of intervention, genre-based writing intervention in the Individual group yielded a large effect at the pretest-immediate posttest, $d = .84$; and a medium effect at the immediate posttest-delayed posttest, $d = .75$. In contrast, instruction in the Pair and Control groups made no statistically significant effect from the pretest to the posttests. The analysis of descriptive data for MTLT showed that the standard deviation (SD) scores in the individual group only decreased steadily at the three testing times.

As regards the reduction of word Concreteness, the results of within-group tests for the Individual group indicated that learners did not improve between the pretest and immediate posttest, and between the pretest and delayed posttest. However, there was a statistically significant difference between the immediate posttest and delayed posttest with a large negative effect size, suggesting that individual learners did improve in use of more abstract vocabulary after the end of the intervention. In contrast, there was no statistically significant improvement between the pretest and any of the posttests in the Pair or Control group. On the other hand, between-group comparisons indicated that, on the immediate posttest, the Individual group was statistically significantly lower than the Pair group and Control groups after controlling for pretest. On the delayed posttest, the Pair group was statistically significantly higher than the Individual group and the Control, while the Individual group was similar to the Control group. These results suggest that collaborative writing in the Pair group was more effective than both the individual practice as well as the traditional instructional approach in the Control group in terms of change in the use of abstract vocabulary.

8.2.2 Potential of instructional intervention on changing lexical complexity

The results in lexical complexity seem to suggest a potential role for genre-based writing and learner collaboration in terms of improving L2 learners' lexical knowledge and sophistication. In the present study, the intervention groups were equal to the Control group

for MTLT at the immediate posttest. This result could be explained with reference to the duration of intervention. It is perhaps that learners could not improve their lexical diversity during a short period of eight weeks only. Increasing one's size of L2 vocabulary could be a challenging process, especially in the case of novice writers who usually require an extended time span to make progress (Meara, 2005). Previous researchers (e.g., Rifkin, 2005; Storch, 2009) have cast doubt over the possibility of making actual progress in L2 key skills such as lexical complexity after instructing learners for even as long as four months. On the other hand, the results seem to contradict the findings obtained by Mazgutova and Kormos (2015), who reported that participants in their study improved in their use of lexical choices after only a month of instruction. This discrepancy could be interpreted in light of the proficiency differences found between the two groups of learners. Learners in the present study were less proficient (overall IELTS 4.0) in comparison to participants in Mazgutova and Kormos's (2015) study, who were more advanced (IELTS 6.0). Previous researchers have confirmed that learners who are more linguistically proficient are usually more successful in terms of producing lexically varied writing (e.g., Keck, 2010; Wette, 2010, Schmitt, 2000; Yasuda, 2015). Another possible explanation of the no change in lexical diversity is perhaps due to the fact that learners wrote on the same genre over time- an observation that has been made by Kormos (2011) and Yasuda (2011). Genre is considered one of the crucial factors that influence lexical choices (Biber & Conrad, 2009). It is possible that the learners did not diversify their lexical choices because the genre was constant. However, the fact that the Individual group outperformed both the Pair and Control groups at the delayed posttest leads us to understand change in lexical complexity from a developmental perspective. That is, learners may turn their receptive knowledge of vocabulary into productive only as they progress over time (Schmitt, 2000). Furthermore, the fact that the Pair group was lower than the Individual group at the delayed posttest could be interpreted as an indication that the

advantage of writing in collaboration may not necessarily be reflected in individual testing cases. On the other hand, the instructional intervention in the Individual group has proven to be potentially more helpful than the traditional writing instruction in the Control group, which may be attributed to the advantage of genre explicit instruction on using lexical choices appropriate to the target genre.

As regards reduction of word concreteness, there is a dearth of empirical research which has employed this measure to investigate the effect of genre-based approach in L2 context.

Comparison of results in this study with previous studies is thus difficult. In general, reduction of word concreteness has been empirically found to be a strong indicator of essay quality as an effect of grade level. In other words, this index has been proven to measure learners' improvement of writing ability as they progress in their grade levels, starting from school up to first year at college (Crossley et al., 2010). This result seems to allocate a role for proficiency level as a factor that could influence the use of more abstract vocabulary.

The immediate –delayed posttest comparison in the Individual group seems to suggest a positive impact of the instructional intervention in this group. The scores of concreteness dropped significantly with a large effect size ($d = -1.14$), suggesting an increase in the use of abstract vocabulary over time. This is an interesting result, since learners made no positive change at earlier tests. It is possible that learners required a longer period of time to learn using more abstract vocabulary appropriate to the exposition genre. On the other hand, the between-group comparison tests showed that the Pair group outperformed the Individual group at both posttests after controlling for the effect of the pretest. This seems to suggest that the advantage of collaborative writing was reflected in individual practice. It could then be presumed that pooling of lexical resources while collaborating could have helped learners to use more abstract vocabulary. This suggestion is actually supported by instances of learner

dialogue, where they negotiated lexical choices in lexical- language related episodes (L- LREs) as illustrated in the following exchange:

63 Ruqaya: so we write to produce more things?

64 Fatma: or we say the production of more things. I think it is strong word.

65 Ruqaya:ok

The above exchange shows that this pair agreed to use more abstract vocabulary through the process of nominalization or using a noun instead of a verb. Such pooling of resources could have positively influenced individual learners in the Pair group to use less concrete vocabulary when writing individually.

Overall, the findings in lexical complexity should be interpreted in the strict context of this study. This is due to the small sample size, which makes generalisation of outcomes difficult. Furthermore, the issue of transferring the advantage of collaborative writing to individual practice seems to be affected by whether the focus is on increasing the size of lexical knowledge (diversity) or on using more sophisticated lexical items (abstractness). The advantage of collaborative writing was more effectively realised in terms of reduction of word concreteness but less so in MTLT. The lack of the effect of pair collaboration in MTLT may be ascribed to pair interaction dynamics which could have probably moderated the effect of learner collaboration. Such factors may include patterns of interaction (such as dominant-dominant or dominant-passive) or reluctance to consider peer's feedback.

8.3 Instructional efficacy on syntactic complexity

8.3.1 Summary of findings

This section discusses the findings relevant to syntactic complexity, which was operationalised using two indices that were computed by Coh-Metrix: percentile of syntactic simplicity and the mean of sentence syntactic similarity for adjacent sentences. It should be reminded that improvement in syntactic complexity is achieved through reduction in syntactic simplicity or the use of more complex syntax. Similarly, reduction in sentence syntactic similarity or increase in sentence variability leads to improvement in syntactic complexity.

The results of within-group tests for the reduction of syntactic simplicity revealed that there was no significant improvement between the pretest and any of the posttest in both intervention groups. In the Control group, however, there was a statistically significant difference between the pretest and the immediate posttest with a large effect size, suggesting that learners in this group produced texts that were characterised with less complex syntactic structures. On the other hand, between-group tests revealed that there was no statistical difference between the intervention groups and the Control group. These results suggest that the genre instructional approach was not more effective than the traditional writing pedagogy in the Control group with respect to improving learners' writing complexity.

In terms of syntactic similarity, the results of within-group tests revealed that there was no statistically significant improvement in the three groups over time. Furthermore, the between-group comparisons indicated no significant differences between the three groups on the immediate posttest. On the delayed posttest, the ANCOVA test indicated that there was a significant difference between the three groups, where the Pair group was significantly higher than the Control but similar to the Individual group.

8.3.2 Potential of instructional intervention on changing syntactic complexity

The two global measures of syntactic complexity revealed a very limited change in syntactic complexity and variability of written constructions in both treatment groups. There are a number of possible explanations to this outcome. First, the duration of the instructional intervention (which was eight weeks in total) might not have been adequate for the learners to manifest improvement in their use of more syntactically complex and varied written constructions. Acquiring syntactic complexity either in terms of complexifying sentence structure or employing varied syntactic structures often requires an extended time span to take place (Bulté & Housen, 2018; Ortega, 2003). This may be true especially in the case of EFL learners with limited English proficiency. The findings in this study corroborates Ortega's (2003) outcome who, based on an analysis of 25 empirical studies that investigated syntactic complexity in college-level contexts, concluded that "an observation period of roughly a year of college-level instruction is probably needed for substantial changes in the complexity of L2 writing to be observed" (p. 492). Thus, conducting longitudinal studies would be more conducive to observing significant changes in linguistic complexity (Polio, 2017).

With respect to the Pair group, the effect of interaction was not reflected in the post-intervention tests conducted shortly (two weeks later) after the intervention. This is because interaction has been found to be "more beneficial and durable for grammar in the long run" (Mackey & Goo, 2007, p.442). This result was found common in a meta-analysis of 28 studies of learner interaction. On the other hand, the results in this study seem to be inconsistent with previous studies' outcomes on collaborative writing which reported improvement in grammatical accuracy (e.g., Storch, 1999, 2005; Storch & Wigglesworth, 2007; Wigglesworth & Storch, 2009). This discrepancy could be understood with reference to how change was measured. In these studies, the outcomes of collaborative writing were

obtained from tests that were completed in pairs; whereas pairs in this study were examined individually after writing collaboratively in class. Therefore, different assessments could have played a role, since involving two learners in composing a single text could yield better results in comparison to texts written individually. In other words, previous studies examined immediate effects of collaboration, whereas this study examined delayed effects- whether benefits of interaction are reflected in individual writing.

The second factor that could have constrained the impact of genre-based approach is learner proficiency level. Ortega (2015) stresses that L2 proficiency is “a powerful source of influence that modulates syntactic complexity” (p.88). Learners in this study were considered intermediate level (roughly corresponds to IELTS 4.0). According to IELTS band description, a user with an IELTS 4.0 level is described as a limited user whose “basic competence is limited to familiar situations” and thus “[is] not able to use complex language” (<https://takeielts.britishcouncil.org/find-out-about-results/understand-your-ielts-scores>). This could hence prompt us to argue that the participants’ limited language proficiency could have possibly moderated the effect of the instructional approach since L2 proficiency has been repeatedly identified a key factor in the improvement of complex writing (e.g., Ai & Lu, 2013; Bulté & Housen, 2018; Ji-young, 2014; Lorenzo & Rodriguez, 2014, Lu, 2011; Mazgutova & Kormos, 2015). The findings in this study seem to be consistent with those reported by Mazgutova and Kormos (2015), who found that learners did not improve in clause embedding (a measure of writing complexity) due to proficiency level.

A third tentative explanation of what may have obscured the potential of the instructional treatment in elevating learners’ syntactic complexity was perhaps linked to complexity trade-off hypothesis (Bulté & Housen, 2018; Skehan, 2009). This hypothesis implies that although different types of complexity may support one another’s growth, they may nonetheless become competitive. As one type of complexity improves, the other type diminishes due to

limited working memory capacity (Skehan, 2009). Thus, it is possible that the relative improvement which the learners made in lexical complexity was made at the expense of growth in syntactic complexity. Research (e.g., Byrnes, Maxim, & Norris, 2010) has found that learners may use less syntactically complex structures when they begin to use more lexically abstract vocabulary to express their opinions. The results in this study are consistent with this finding, since learners in the Pair group showed improvement in the reduction of concreteness, but failed to use more syntactically complex structures. Taking together the likely effect of proficiency level, duration of intervention, and the complexity trade-off effect, it is perhaps important to view L2 complexity improvement as a dynamic phenomenon, which “sometimes proceeds gradually, sometimes with sudden spurs, but which may also be characterized by stages of backsliding and stagnation” (Bulte & Housen, 2018, p.148). This suggests that improvement in syntactic complexity should not be considered a linear process that may occur immediately following exposure to a certain instructional practice.

The only improvement that was observed in syntactic complexity was found in reduction of syntactic similarity, where the Pair group outperformed the Control group but was similar to the Individual group. This result corroborates the findings reported in Crossley and McNamara (2014) who found that L2 learners produced essays with decreased syntactic similarity after being taught to write argumentative essays. It could be tentatively said that writing in collaboration could have played a role in this change, even if only at the delayed posttest. This is because the analysis of dyadic interactions revealed that learners did negotiate sentence structure in Form-language related episodes (F-LREs). It is possible that pooling of resources during collaboration could have helped learners to use varied syntactic structures when they were tested individually. The delayed improvement in the use of varied structures could be understood as an advantage of collaborative writing which is realised only over time- a phenomenon which Swain and Lapkin (1998) has described as “learning in the

process". In other words, collaborative learners may sometimes benefit from collaborative writing even if the effects are not immediately observed.

8.4 Role of learner collaboration

Analysis of dyadic interactions in terms of LREs revealed interesting results about the potential role of face-to-face collaboration in assisting L2 learners to complete written tasks. Overall, the pairs (n=20) in this study produced a high number of LREs (12050 in total) throughout eight weeks of instruction. Similar to Philp, Walter, and Basturkmen (2010), the results indicated that Lexis-LREs (LREs) were the highest in number. Form-LREs (F-LREs) were second highest, while Mechanics-LREs (M-LREs) were the fewest. The results also revealed that the pairs resolved a high percentage (82.3 %) of LREs interactively. Furthermore, the percentage of correctly resolved LREs was higher than those which were resolved incorrectly or unresolved. In terms of patterns of interaction, pairs of learners maintained roughly similar patterns throughout the study. Overall, 50 % of learners formed a collaborative pattern of interaction. Dominant-dominant and dominant- passive counted for 20 % of the total number. The pattern expert-novice counted for 30 % of the total number of patterns.

The results seem to suggest a positive role for learner collaboration. This is evident in the high number of LREs that were produced in total, as well as the high number of LREs that were resolved interactively. This is especially interesting given the fact that the participants were new to collaborative writing at the time of intervention. Furthermore, the results suggest that learners were successful in maintaining patterns that could be described as conducive (Storch, 2002a) to language learning (e.g., Collaborative and expert-novice). The results in this study corroborates findings by Watanabe and Swain (2007) who reported that learners who formed collaborative as well as expert-novice patterns of interaction managed to produce

a larger number of LREs. In this study, for instance, Maryam and Asma formed a dominant-dominant interaction pattern and produced 750 LREs in total. In contrast, Mohammed and Said worked in a collaborative pair and managed to produce a total of 1506. Furthermore, the results in this study support Storch's (2002a) notion that the particular pattern of interaction which learners form could influence the frequency of episodes that are resolved interactively. For instance, all the pairs which formed collaborative patterns of interaction managed to resolve a higher percentage of LREs interactively (e.g., Manal and Wisal (97%), Nasra and Munira (97%), Mohammed and Said (98%), Noor and Sheikha (93%)). By contrast, the percentage of LREs that were resolved interactively by learners who formed patterns of interaction which are not conducive to learning (dominant-dominant or dominant-passive) was much smaller in comparison (e.g., Maryam and Asma (44%), Salem and Bader (43%)).

Although the quantitative results showed that collaborative work was not largely reflected in individual practice, this does not eliminate the benefit of learner collaboration. This is so because the benefit of learner interaction usually becomes evident in the long run only (Mackey & Goo, 2007), which is a process that Swain and Lapkin (1998) termed as learning in the process. In other words, learning gradually takes place even when quantitative learning change is not observed in post-intervention tests.

Despite the fact that the study did not offer in-depth qualitative analysis of learner collaboration, it nonetheless provided a general portrait of the potential of learner collaboration in the current EFL context. The high engagement in terms of the frequency of LREs and interaction patterns seem to indicate that the learners received the novel experience of writing in pairs positively. It also suggests that exposing learners more frequently to collaborative experiences would assist them to expand their L2 knowledge through pooling of linguistic resources and exchange of feedback.

8.5 Summary

The current study investigated the instructional effect of genre-based writing pedagogy through examining change in five aspects of discourse and linguistic knowledge. The results of the current study can be categorised within three patterns. The first pattern is that the college-level EFL learners in this study gained more pronounced positive change in discourse aspects (i.e., text content, text organisation, reduction of narrativity). The second pattern is that less change was observed in linguistic complexity (i.e., lexical and syntactic complexity). The third pattern concerns the observation that tertiary EFL learners do not mostly transfer the benefit of classroom-based collaborative writing into individual writing.

The largest impact of the instructional intervention was found to be in the measures of discourse. This positive impact could be attributed to the nature of the genre-based writing instruction which emphasises explicit instruction on schematic or generic structures throughout the different stages of the teaching/ learning cycle (TLC). This is evident in the magnitude of effect observed in the measure of text organisation, which was large in both experimental groups. However, it should be noted that assessment of the discourse variables was not entirely objective, since analytic rubric (human rating) was used. On the other hand, there was less positive change in the measures of lexical and syntactic complexity. Only the individual group made a significant improvement in using more varied vocabulary over time (as measured by MTLTD) and only the Pair group made significant change in the use of more abstract vocabulary which is characteristic of the expository genre. As regard syntactic complexity, no significant impact was observed in the use of more complex syntactic constructions. However, only learners who received instruction in collaborative writing used a greater proportion of varied syntactic structures after the intervention. Finally, although this study has reinforced the findings of previous research with respect to the advantage of collaborative writing (at least with regard to change in discourse aspects), this study

contributes to our knowledge of the possibility of transferring the benefit of joint writing to individual exam contexts. The results of this study seem to suggest that the transfer of the benefit of collaborative writing is not guaranteed. However, this outcome should be interpreted in light of the classroom realities in terms of the specific dynamics of collaborative writing and interaction patterns that were observed during the event of writing collaboration. Overall, the study has reinforced the potential advantage of the genre-based writing instruction in EFL contexts. It has also contributed to our knowledge of the potential of collaborative writing transfer; an area that has seldom been investigated.

CHAPTER NINE

Conclusion

9.0 Overview

This study aimed to investigate the effectiveness of genre-based writing instruction writing (GBWI) and collaborative writing (CW) in a tertiary EFL context in Oman. Participants received instruction in writing expository essay genre under two conditions- individually and in pairs. To test the effect of the instructional intervention, two experimental groups were compared to a control group. The dependent variables which were measured to gauge change included text Content, text Organisation, reduction of Narrativity, Lexical complexity, and Syntactic complexity. The research design involved in the empirical classroom intervention included a pretest, treatment, an immediate posttest, and a delayed posttest. Finally, the classroom intervention lasted for eight weeks and involved the employment of the genre Teaching/Learning Cycle (TLC), which was comprised of four main stages of instruction. Communicative tasks were used for the genre instruction.

This chapter presents a summary of the research reported in this study. In this section, I will present a summary of the main findings. Then, I will outline the main methodological and pedagogical implications of the findings. Next, I will briefly discuss the limitations of the study and propose suggestions for further research. Finally, I will highlight my personal experience through reflecting on my PhD journey.

9.1 Summary of main findings

The present study was driven by a total of six research questions. Overall, the intervention groups made significant improvements in most of the target variables. Furthermore, the

results generally suggested that the benefits of collaborative writing were mostly not reflected in individual tests. This section summarises the main findings of the study.

RQ 1 focused on examining the effect of the proposed instructional treatment on text Content. Analysis of data in this variable revealed the following results:

- The Individual group improved significantly from the pretest to the immediate posttest. No significant improvements were observed between the pretest and delayed posttest or the immediate posttest and delayed posttest. The Pair group made a significant improvement between the pretest and the immediate posttest, and between the pretest and the delayed posttest. No significant improvement was made between the immediate posttest and delayed posttest.
- The Control group made no statistically significant improvement between the pretest and any of the posttests.
- In between group comparisons, the Individual group as well as the Pair group outperformed the Control group on the immediate posttest. There was no statistical difference between the Individual and Pair groups.
- Both Individual and Pair groups outperformed the Control group on the delayed posttest, but there was no difference between the two intervention groups.

RQ 2 investigated the changes on the text Organisation variable. The main findings which the study obtained are as follows:

- The Individual group improved significantly from the pretest to the immediate posttest, and between the pretest and delayed posttest. Similarly, the Pair group made a significant improvement between the pretest and immediate posttest, and between the pretest and delayed posttest. No

significant improvement was made between the immediate posttest and delayed posttest in both groups.

- The Control group made no significant improvement over time.
- Between group comparisons indicated that the Individual group as well as the Pair group outperformed the Control group on the immediate posttest. However, there was no statistical difference between the Individual and Pair groups.
- Both Individual and Pair groups outperformed the Control group on the delayed posttest, but there was no difference between the two interventions groups.

RQ 3 examined the effect of the instructional intervention on reduction of the levels of Narrativity. The study yielded the following results:

- The results in the Individual group dropped significantly from the pretest to the immediate posttest, suggesting a reduction of Narrativity. There was a significant drop between the immediate posttest and delayed posttest. In the Pair group, the results dropped significantly between the pretest and immediate posttest. No significant changes were observed between the pretest and delayed posttest or the immediate posttest and delayed posttest.
- The Control group made no significant changes over time.
- The between group comparisons revealed that the Individual group as well as the Pair group outperformed the Control group on the immediate posttest. However, there was no statistical difference between the Individual and Pair groups.

- Both Individual and Pair groups outperformed the Control group on the delayed posttest, but there was no statistically significant difference between the treatment groups.

RQ 4 investigated learners' improvement in Lexical Complexity (LC), through the use of two indices that were computed by Coh-Metrix: MTLTD and word Concreteness. Improvement in LC was marked through increase in MTLTD but reduction in word Concreteness. The main findings in MTLTD are as follows:

- The Individual group made no significant improvement from the pretest to the immediate posttest, but there was a significant improvement between the pretest and delayed posttest as well as between the immediate posttest and delayed posttest. In contrast, neither the Pair group nor the Control made any significant improvement over time.
- In between- group comparisons, there was no significant difference between the Intervention groups and the Control group on the immediate posttest. Thus, the three groups were equal. On the delayed posttest, however, the Individual group outperformed both the Pair group and the Control. No difference was observed between the Pair group and the Control.

In the measure of word Concreteness, the following results were obtained:

- The Individual group made a significant increase in word concreteness between the pretest and the immediate posttest, as well as between the pretest and the delayed posttest. However, there was a significant decrease between the immediate posttest and delayed posttest. By contrast, there was no significant improvement over time in the Pair group and the Control.

- In between group comparisons, the Individual group was lower than the Pair and the Control group in the reduction of word Concreteness on the immediate posttest. On the delayed posttest, the Pair group outperformed both the Individual and the Control groups. No difference was observed between the Individual group and the Control.

RQ 5 focused on the treatment's effect on Syntactic Complexity (SC). Changes were measured using two indices that were computed by Coh-Metrix: Syntactic Simplicity and Sentence Syntactic Similarity. Improvement in SC was marked through decrease in both measures over time. The results in Syntactic simplicity are as follows:

- Both the Individual and Pair group made no significant change between the pretest any of the posttests. By contrast, there was a significant increase in syntactic simplicity between the pretest and the immediate posttest in the Control group.
- In between group comparisons, there was no significant difference among the three groups on the immediate as well as delayed posttest.

On the other hand, the results in the Sentence Syntactic Similarity were as follows:

- Within-group analysis showed that no significant differences were made in any of the three groups over time.
- In between-group comparisons, there was no statistically significant difference between the intervention groups and the Control on the immediate posttest. On the delayed posttest, the Pair group outperformed the Control group, but there was no difference between the Individual and Pair group.

Finally, RQ 6 explored how learner interaction in the Pair group could assist learners to complete written tasks, through the analysis of language related episodes (LREs). Analysis of dyadic interactions showed that learners produced a greater number of LREs when collaborating. Furthermore, the analysis indicated that pairs who worked collaboratively were able to produce and correctly resolve a greater number of LREs compared to learners who formed patterns of interactions that involved less negotiation or engagement.

9.2 Study contributions

This study has made a set of methodological and pedagogical contributions.

Methodologically, the study has contributed to advancing our understanding of the potential of GBWI in the EFL context through expansion of instructional practice within genre teaching/learning cycle (TLC). In particular, the study examined instructional efficacy by expanding practice in the final stage of the Fees and Joyce (1998) TLC model, though having learners to produce written texts individually in one experimental group and in pairs in another intervention group at the independent practice stage.

Furthermore, since most previous research has examined the effects of GBWI and CW separately, the present study contributed to research in L2 writing as it provided thorough investigation of an innovative research design which examined the effects of GBWI in conjunction with CW. Furthermore, the study has contributed to improving testing of the effects of collaborative writing, through having pairs of learners to complete tests individually. This arrangement assisted in overcoming the problem of controlling for the time required to complete a written task when writing individually and in pairs. Controlling for test duration has been a concern that has been raised by previous researchers since collaborative writing is more time consuming than individual writing.

The study has also contributed to research on automated assessment of L2 learning through the use of Coh-Metrix. The study adds to the ongoing, yet still limited, research on the potential of using Coh-Metrix in providing objective, robust, and reliable analysis of L2 textual performance. More particularly, the study employed Narrativity, which is a robust index that distinguishes text type, to investigate change in the discourse level. To date, extremely limited L2 scholarship has examined genre change within EFL learners using this measure. Furthermore, the study adds to our understanding of the effect of GBWI on lexical complexity through measuring change using concreteness- an index that has not been widely used by previous researchers. Finally, the study contributed to expanding our knowledge of the role of L2 instruction on changing syntactic complexity, through the use of non-traditional measures (such as manual count of clauses or T-units). This study adds to the limited body of research that has examined, in conjunction, change within lexical as well as syntactic complexity. Such analysis can provide a more comprehensive view of instructional effect on L2 learner's linguistic performance.

Pedagogically, the study provided empirical evidence for the potential of adopting GBWI and CW as approaches that could help college-level EFL learners to develop their written performance of expository essay genre. The results indicated that the GBWI could potentially assist EFL instructors to teach discourse features of texts such as content and organisation more effectively. Although the results in this study do not clearly suggest that pair writing is more effective than individual practice inside a genre-based writing classroom, teachers nonetheless are invited to carefully plan collaborative writing tasks and environment in order to minimise the adverse effect of factors which could have moderated the impact of student-student collaboration in this study (e.g., length of instruction and patterns of interaction). The provision of instruction into CW has proven to be beneficial in this study. Thus, instructors of English may provide learners with ample practice in collaborative writing prior to actual class

instruction. Teachers can also elicit from learners their preferences in terms of whether they prefer to write with another student. Indeed, understanding of these and similar aspects would contribute to maximizing the potential of CW. Furthermore, teachers are suggested to consider learners' proficiency level as a critical factor that could play a key part in improving lexical and syntactic complexity. This is because learners who are not linguistically ready may not be able to complexify their written production even if they were exposed to GBWI for an extended period of time (Hyland, 2004). Finally, teachers who wish to adopt the GBWI should seek training to ensure maximal advantage, especially in instructional contexts (such as the current context) where GBWI is still novel.

9.3 Limitations

Seldom is any research without limitations. This study is no exception and thus there are a number of limitations to it. To begin with, the sample size could be argued to be small, since only a total of 63 participants were involved. However, the number of participants in the three groups was almost balanced with 21 participants in the Individual group, 20 in the Pair group, and 22 in the Control group. This is the average class size in the Colleges of Applied Sciences in Oman. Since the three classes were recruited in their entirety, it could thus be assumed that the study has ecological validity.

Furthermore, the involvement of the researcher in delivering genre-based writing instruction in the intervention groups could be seen as a limitation. The dual role of a researcher/teacher could have influenced the results. Nevertheless, I exercised great care in minimising the effect of my involvement. Prior to taking the decision to teach the intervention groups, I approached English instructors in the English department at the research site in order to take part in delivering the instruction. However, this attempt was unsuccessful due to logistical constraints pertinent to the teachers. Also, I invited a colleague to observe teaching in both

intervention groups so as to prevent possible bias. Finally, I strictly adhered to the study design in terms of using identical teaching materials and spending equal teaching time in both groups.

The duration of the treatment (8 weeks) could be argued to be short. Although the initial intervention plan included a longer period of instruction, it was difficult to implement due to curriculum constraints. It was not possible to extend the duration of intervention as learners had to prepare for final exams toward the end of semester. Also, it should be underscored that the researcher had to allow sufficient time for pre- and post-intervention tests, which eventually added to the total number of weeks (11 weeks in total). Thus, it was not possible to go beyond this duration since the entire semester comprised 15 weeks only.

Finally, the fact that the study examined the effect of the pedagogical intervention on writing a single genre (i.e., the exposition genre) may be seen as a limitation. It would have been interesting to investigate the effect of the instructional intervention on writing two different genres. However, the exposition genre is arguably the most common type of text which these tertiary EFL learners are usually required to produce. The relevance of the genre was expected to encourage learners to manifest greater engagement and hopefully internalise new input more quickly.

9.4 Suggestions for future research

This study has contributed interesting results which could be corroborated by further research. Overall, the study has yielded results which are in line with the majority of previous research on the potential of the genre-based approach. Since this study examined the effect of the instructional intervention in one College of Applied Sciences (CAS) in Oman, it would be interesting to replicate the study with a larger sample size in a different CAS. It would also be

informative to examine the type of effect which the intervention could make when writing a different genre or when learners of a different proficiency level are involved.

In addition to quantitative analysis of data, conducting qualitative research would contribute valuable information concerning the factors which may influence learner interaction during collaborative writing. In-depth case studies would reveal critical information about how learners interact when they collaborate, through consideration of aspects such as personality and other individual learner differences. Qualitative research would also illuminate how learners formulate their output when negotiating input during collaborative tasks. Future research could investigate qualitatively the formative value of pair work (Wigglesworth & Storch, 2009) by observing learners while writing collaboratively. Such research could inform teachers' pedagogical practices in the classroom.

Future researchers may conduct comparative research that investigates the qualitative differences found in learners' interactive behaviours when writing collaboratively in their L1 and examine if such behaviours are similar or different from the ones developed during interaction in English. Such research would illuminate the role of L1 in shaping the repertoire of interaction skills that EFL learners bring to the English writing class. It would also aid bilingual teachers to probe the particular linguistic and cultural challenges that may arise in collaborative writing situations due to differences between L1 and L2.

Finally, future researchers could consider inclusion of computer-mediated tools, such as wikis, in their investigation of the potential of learner collaboration, since there is still a dearth of research in this area. An innovative research design would consider exposing the same participants to both modes of collaboration (face-to-face versus wiki-mediated) and later asks learners to complete a similar written task after instruction in each mode. Such a

comparison would illuminate if one mode of collaboration could influence learners' written performance more effectively.

9.5 Final remarks

Undertaking a PhD is no easy task. Yet, for one to grow, she or he has to have the courage to travel the extra mile! This journey has been rewarding in different ways. First, I have learned that in order to become an effective teacher, I must approach challenges with an open mind that considers things logically. If a learner is not performing as expected, a solution could be reached through investigation of the relevant problem or trying something new. This journey has taught me that the type of instruction which a teacher adopts can make a substantial effect on how far learners can develop. As such, the decision to implement a particular type of instruction should be made after careful consideration of learners' needs and capabilities.

This experience has encouraged me to continue the quest for knowledge and excellence, because a good teacher never ceases to learn. The research skills which I have learned over the past four years will hopefully empower me to approach different obstacles more critically, through conducting further research and acquiring new skills. I also hope that I will be able to contribute to the improvement of pedagogical practice in my context, through sharing my knowledge and skills with colleagues and students. After all, life is all about sharing what we have. Finally, it is my hope that this study will become a significant contribution to our knowledge of English pedagogy in my academic context and beyond.

APPENDICES

Appendix A

Consent form (students)

THE UNIVERSITY *of* York

DEPARTMENT OF EDUCATION
Heslington, York, YO10 5DD
Tel: (01904) 323460
Web: <http://www.york.ac.uk/education>

Information Page صفحة البيانات

Efficacy of Genre-Based Writing Instruction and Learner Collaboration A Study of Tertiary EFL Learners

فعالية الكتابة التعاونية ضمن منهج تدريس مهارات الكتابة المعتمد على أنواع النصوص: دراسة
لطلاب اللغة الإنجليزية في المرحلة الجامعية الأولى

عزيزي الطالب:

نعمل على تنفيذ مشروع بحث حول فعالية الكتابة التعاونية ضمن منهج تدريس مهارات الكتابة المعتمد على أنواع النصوص، و إننا نهدف من خلال هذا الخطاب دعوتك للمشاركة في هذه الدراسة.

Dear participant,

We are currently carrying out a research project to investigate the effects of learner collaboration in a genre-based writing classroom the context of EFL tertiary education in Oman. We are writing to request your participation in this study.

ماذا تعني مشاركتك بهذه الدراسة؟

يهدف هذا البحث إلى دراسة مدى تأثير أنماط التفاعل الصفي و كذلك الدافعية لدى الطلاب في تطبيق منهج تدريس مهارات الكتابة المعتمد على أنواع النصوص. عزيزي الطالب: سوف يطلب منك أن تنضم إلى إحدى مجموعتين: إما مجموعة التدخل البحثي ، أو مجموعة المقارنة. في كلا المجموعتين، سوف يتم تدريس الطلاب مهارات الكتابة باللغة الانجليزية وفق منهج تدريس الكتابة القائم على أنواع النصوص وسوف تستمر الاسنشرافية لمدة اسبوعين، بينما ستستمر الدراسة البحثية الأساسية لمدة ثمانية أسابيع. خلال هذه المدة، سيتم تدريس نوعين من النصوص: السرد و المقالات التفسيرية. علاوة على ذلك، سيعمل الطلاب في مجموعة التدخل البحثي في أزواج تعاونية (كل طالبين معا) ، وسوف يتم تسجيل كل محادثاتهم فيما بينهم مع المدرس أيضا، بينما سيعمل الطلاب في مجموعة المقارنة بشكل فردي طوال الوقت و سوف يتم تسجيل مادئاتهم فيما بينهم ومع المدرس أيضا. كذلك سيطلب من جميع الطلاب الإجابة على أستبانة بحثية تتعلق بموضوع الدافعية نحو إنجاز الأنشطة الكتابية قبل و بعد بدء التجربة البحثية.

What would this mean for me?

You will be requested to join either a pair group or an individual group, where participants – in both groups- will receive genre-based instruction for eight weeks. During this intervention, you will take part in expository essay writing lessons. Moreover, participants in the pair group will work in collaborative pairs all the time and their conversations and

interactions with the class teacher and other participants will be audio-recorded. Participants in the individual group, on the other hand, will work individually all the time. Additionally, participants in both groups will be invited to complete three tests: a pretest, immediate posttest, and delayed posttest.

سرية البيانات

عزيزي الطالب: سوف يتم التعامل مع جميع البيانات التي يتم جمعها من كل المشاركين في هذه الدراسة بسرية تامة، و لن يكون بمقدور احد- سوى الباحث- الإطلاع على هذه البيانات.

Anonymity

The data that you provide (written texts and audio-recorded interactions) will be coded code in a password protected computer, and only the researcher will have access to it. Any information that identifies you will be stored separately from the data.

تخزين البيانات المتعلقة بالمشاركين في الدراسة

عزيزي الطالب: إن جميع البيانات التي يتم جمعها لأغراض هذه الدراسة، سيتم التخلص منها بعد مرور خمس سنوات على عمر الدراسة. كذلك فإن بيانات الدراسة قد تستخدم لأغراض التحليل في المستقبل (خلال خمس سنوات كحد أقصى- لضمان الوقت الكافي للنشر)، أو قد يتم تداولها لأغراض بحثية أو تدريبية، و لكن في جميع الأحوال لن يتم الإفصاح عن أسماء المشاركين في الدراسة. إذا كنت غير راغب بنشر بياناتك بأي صورة كانت، فنرجو منك عدم التوقيع بالموافقة. ملاحظة: للمشاركين حرية الإنسحاب من الدراسة خلال سبعة أيام من بداية جمع البيانات.

Storing and using your data

The data will be kept for five years after which time they will be destroyed. The data may be used for future analysis (up to five years from now – to allow for the time needed to publish papers) and shared for research or instruction purposes, but participants will not be identified individually. If you do not want your data to be included in any information shared as a result of this research, please do not sign this consent form. Also, you are free to withdraw from the study up until seven days after the commencement of data collection.

معلومات حول سرية البيانات

إن البيانات التي نجمعها قد تستخدم بصورة غير علنية وبصور مختلفة. نرجو منك وضع إشارة صح مقابل أشكال النشر التي يمكن أن نستخدم فيها بياناتك.

عزيزي الطالب: نأمل منك المشاركة في هذه الدراسة المهمة. إن كان لديك أسئلة تتعلق بهذ الدراسة، فإنه يسعدنا أن تتواصل معي على البريد الإلكتروني ssab503@york.ac.uk أو على بريد رئيس لجنة أخلاقيات البحث بجامعة يورك education-research-administrator@york.ac.uk

Information about confidentiality

The data that we collect (written texts and audio-recorded interactions) may be used in *anonymous* format in different ways. Please indicate on the consent form attached with a if you are happy for this anonymised data to be used in the ways listed.

We hope that you will agree to take part. If you have any questions about the study that you would like to ask before giving consent or after the data collection, please feel free to contact Saif Said Mohammed Al-Baimani (ssab503@york.ac.uk) or the Chair of the Ethics Committee via email education-research-administrator@york.ac.uk

If you are happy to participate, please complete the form attached.
عزيزي الطالب : إن كنت راغبا بالمشاركة في الدراسة ، فنرجو منك الإجابة على الإستمارة الملحقة

Please keep this information sheet for your own records. نرجو منك الإحتفاظ بهذه الإستمارة .

Thank you for taking the time to read this information.
شاكرين لك حسن تعاونك معنا

Yours sincerely, خالص التحية و التقدير

Saif Said Mohammed Al-Baimani سيف بن سعيد بن مجد البيماني

Efficacy of Genre-Based Writing Instruction and Learner Collaboration A Study of Tertiary EFL Learners

Consent Form

استمارة الموافقة للمشاركة بالدراسة البحثية

Please tick each box if you are happy to take part in this research.

الرجاء وضع علامة صح في كل المربعات أدناه إن كنت راغبا في المشاركة بالدراسة.

I confirm that I have read and understood the information given to me about the above named research project and I understand that this will involve me taking part as described above.

أؤكد أنني قد قرأت وفهمت المعلومات المعطاة لي عن المشروع البحثي المذكور أعلاه وأنا على وعي بأن ذلك يعني أنني سأشارك بالبحث كما هو موضح أعلاه.

I understand that the purpose of the research is investigating patterns of interaction and motivation inside a genre-based classroom in the context of Oman.

أفهم أن الغرض من هذه الدراسة هو دراسة أنماط التفاعل الصفي و الدافعية ضمن صفوف تدريس الكتابة المعتمدة على منهج تحليل النصوص الكتابية، وأن هذه الدراسة البحثية تستهدف طلاب المرحلة الجامعية بسلطنة عمان.

I understand that data will be stored securely on a password protected computer and only Saif Said Mohammed Al-Baimani will have access to the data. I understand that my identity will be protected by use of a code number.

أقر بأنني على وعي بأن البيانات المتعلقة بالمشاركين في الدراسة البحثية ستخزن في كمبيوتر محمي بكلمة مرور سرية، وأنه لن يطلع أحد على هذه البيانات سوى الباحث سيف بن سعيد بن محمد البيماني، كما أنني أقر أنني على وعي بأن هويتي الشخصية ستكون محمية باستخدام رقم سري.

I understand that data could be used for future analysis or other purposes, e.g. research and teaching purposes, for up to five years:

أقر بأنني على وعي بأن البيانات البحثية يمكن ان تستخدم في المستقبل لأغراض التحليل البحثي أو أغراض أخرى مثل البحث أو التدريس، خلال فترة زمنية لا تتعدى خمس سنوات. من هذه الاغراض مثلا:

in publications that are mainly read by university academics
المنشورات التي يتم قراءتها بشكل رئيسي من قبل الأكاديميين الجامعيين

in presentations that are mainly read by university academics
العروض التقديمية التي يتم قراءتها بشكل رئيسي من قبل الأكاديميين الجامعيين

in publications that are mainly read by the public
المنشورات التي يتم قراءتها بشكل رئيسي من قبل القراء غير المتخصصين

in presentations that are mainly read by the public
العروض التقديمية التي يتم قراءتها بشكل رئيسي من قبل القراء غير المتخصصين

freely available online
البيانات البحثية يمكن أن تتوفر بشكل مجاني على شبكات الإنترنت.

I understand that data will be kept for five years after which it will be destroyed

أقر بأنني على وعي بأن البيانات البحثية ستحفظ لمدة خمس سنوات و بعدها سيتم التخلص منها.

I understand that I can withdraw my data up until seven days after the data has been collected

أقر بأنني على وعي بأنه يمكنني المطالبة بسحب بياناتي من الدراسة خلال مدة أقصاها سبعة أيام من تاريخ بدء الدراسة.



Name _____

Date _____

Signature _____

Appendix B

Revised analytic rubric (Connor-Linton & Polio, 2014)

	Content		Organization		Vocabulary		Language Use	Score /2	Mechanics
20	Thorough and logical development of thesis Substantive and detailed No irrelevant information Interesting A substantial number of words for amount of time given	20	Excellent overall organization Clear thesis statement Substantive introduction and conclusion Excellent use of transition word	20	Very sophisticated vocabulary Excellent choice of words with no errors Excellent range of vocabulary Idiomatic and near native-like vocabulary	20	No major errors in word order or complex structures No errors that interfere with comprehension Only occasional errors in morphology	20	Appropriate layout with indented paragraphs No spelling errors No punctuation errors
16		16	Excellent connections between paragraphs Unity within every paragraph	16	Academic register	16	Frequent use of complex sentences Excellent sentence variety	16	
15	Good and logical development of thesis Fairly substantive and detailed Almost no irrelevant information Somewhat interesting An adequate number of words for the amount of time given	15	Good overall organization Clear thesis statement Good introduction and conclusion Good use of transition words Good connections between paragraphs Unity within most paragraphs	15	Somewhat sophisticated vocabulary Attempts, even if not completely successful, at sophisticated vocabulary Good choice of words with some errors that don't obscure meaning	15	Occasional errors in awkward order or complex structures Almost no errors that interfere with comprehension Attempts, even if not completely successful, at a variety of complex structures	15	Appropriate layout with indented paragraphs No more than a few spelling errors in less frequent vocabulary No more than a few punctuation errors
11		11		11	Adequate range of vocabulary but some repetition Approaching academic register	11	Some errors in morphology Frequent use of complex sentences Good sentence variety	11	
10	Some development of thesis Not much substance or detail Some irrelevant information Somewhat uninteresting Limited number of words for the amount of time given	10	Some general coherent organization Minimal thesis statement or main idea Minimal introduction and conclusion Occasional use of transitions words	10	Unsophisticated vocabulary Limited word choice with some errors obscuring meaning Repetitive choice of words No resemblance to academic register	10	Errors in word order or complex structures Some errors that interfere with comprehension Frequent errors in morphology Minimal use of complex sentences	10	Appropriate layout with most paragraphs indented Some spelling errors in less frequent and more frequent vocabulary Several punctuation errors
6		6	Some disjointed connections between paragraphs Some paragraphs may lack unity	6		6	Little sentence variety	6	
5	No development of thesis No substance or details Substantial amount of irrelevant information Completely uninteresting Very few words for the amount of time given	5	No coherent organization No thesis statement or main idea No introduction and conclusion No use of transition words	5	Very simple vocabulary Severe errors in word choice that often obscure meaning No variety in word choice No resemblance to academic register	5	Serious errors in word order or complex structures Frequent errors that interfere with comprehension Many error in morphology Almost no attempt at complex sentences	5	No attempt to arrange essay into paragraphs Several spelling errors even in frequent vocabulary Many punctuation errors
0		0	Disjointed connections between paragraphs Paragraphs lack unity	0		0	No sentence variety	0	

Appendix C

Sample task in the joint construction stage²

“Describe some of the problems that overcrowding in cities causes and suggest at least one possible solution.”

- A) As a result our modern day cities face a number of serious problems which are due to overcrowding.
- B) The consequence of too dense a population is that one or all of these areas must suffer.
- C) Owing to being over peopled Britain’s main cities all have a number of people living on the streets. Life must be extremely hard for these people and one effect of such a lifestyle is that drug abuse and crime rates rise.
- D) Cities are environmentally unfriendly places.
- E) Thus, Governments must educate people to limit the size of their family. In China, couples are penalized financially as a consequence of having more than one child. This may seem cruel, but the “one-child policy” is beginning to have an effect on the world’s most populous nation.
- F) The twentieth century saw a major increase in the world’s population. Yet large parts of the globe remain uninhabitable, so people are drawn towards living in existing towns and cities.
- G) Hence, the greater the population, the more natural resources are burnt up and, consequently, the more pollution is created. A city crowded with people leads to roads crawling with cars.
- H) As a result a lot of taxpayer’s money is spent on trying to keep the effects of overcrowding under control. More housing is built; more roads are planned. This tactic might alleviate some symptomatic problems at high cost. However, it will never solve the problem of overpopulation.
- I) This is because light, heat, travel and food must all be supplied artificially as one is removed from nature.
- J) Living in a city, therefore, forces us to be part of an unhealthy consumer throwaway society, which creates illness and environmental crisis, rather than curing it.
- K) It is the Government’s responsibility to find solutions for these problems.

² Source: <http://www.onestopenglish.com/>

Appendix D

Sample graph organiser to be completed in preparation for expository essay writing.

Introduction	
Hook Write a sentence or two to get the reader interested in reading your essay.	
Background Information Briefly, provide background information about the topic of your essay.	
Thesis Statement Say what the topic is and what are you going to say about it.	
Body	
Point Start the paragraph with a topic sentence, focusing on one specific point.	
Argument Provide your argumentation and supporting evidence.	
Conclusion	
Reiteration Summarise what you have said. Say what you have learned.	

Appendix E

Test of normality distribution (Shapiro-Wilk) (*significant at .05 level*)

Variable	Group	Shapiro-Wilk		
		Statistic	df	Sig.
Reduction of syntactic simplicity Pretest	Individual	.899	21	.063
	Pair	.983	20	.963
	Control	.969	22	.693
Reduction of syntactic simplicity immediate posttest	Individual	.937	21	.186
	Pair	.944	20	.284
	Control	.984	22	.967
Reduction of syntactic simplicity delayed posttest	Individual	.965	21	.623
	Pair	.972	20	.800
	Control	.946	22	.262
Reduction of syntactic similarity Pretest	Individual	.948	21	.319
	Pair	.912	20	.069
	Control	.971	22	.741
Reduction of syntactic similarity immediate posttest	Individual	.950	21	.340
	Pair	.979	20	.924
	Control	.929	22	.119
Reduction of syntactic similarity delayed posttest	Individual	.929	21	.132
	Pair	.920	20	.099
	Control	.773	22	.070
MTLD Pretest	Individual	.969	21	.704
	Pair	.891	20	.068
	Control	.984	22	.967
MTLD immediate posttest	Individual	.906	21	.056
	Pair	.915	20	.078
	Control	.960	22	.482
MTLD delayed posttest	Individual	.921	21	.090
	Pair	.887	20	.084
	Control	.929	22	.117
Reduction of concreteness Pretest	Individual	.915	21	.071
	Pair	.912	20	.070
	Control	.915	22	.060
Reduction of concreteness immediate posttest	Individual	.984	21	.967
	Pair	.946	20	.309
	Control	.904	22	.056
Reduction of concreteness delayed posttest	Individual	.961	21	.539
	Pair	.968	20	.712
	Control	.962	22	.526
Reduction of narrativity Pretest	Individual	.965	21	.619
	Pair	.959	20	.520
	Control	.955	22	.394
Reduction of narrativity immediate posttest	Individual	.933	21	.159
	Pair	.961	20	.558
	Control	.978	22	.880
Reduction of narrativity delayed posttest	Individual	.951	21	.349
	Pair	.959	20	.532
	Control	.961	22	.516
Text content Pretest	Individual	.945	21	.279
	Pair	.932	20	.168
	Control	.924	22	.094

Text content immediate posttest	Individual	.955	21	.414
	Pair	.925	20	.126
	Control	.961	22	.507
Text content delayed posttest	Individual	.944	21	.265
	Pair	.902	20	.406
	Control	.904	22	.316
Text organisation Pretest	Individual	.959	21	.503
	Pair	.966	20	.665
	Control	.974	22	.810
Text organisation immediate posttest	Individual	.923	21	.099
	Pair	.933	20	.179
	Control	.906	22	.093
Text organisation delayed posttest	Individual	.934	21	.166
	Pair	.881	20	.081
	Control	.936	22	.162

LIST OF ABBREVIATIONS

ANCOVA Analysis of Covariance

ANOVA Analysis of Variance

CAF Complexity Accuracy Fluency

CAS College of Applied Sciences

CLT Communicative Language Teaching

CW Collaborative Writing

EAP English for Academic Purposes

EFL English as a Foreign Language

ESL English as a Second Language

ESP English for Specific Purposes

F-LRE Form- Language Related Episode

GBWI Genre Based Writing Instruction

GFP General Foundation Programme

IELTS International English Language Testing System

IH Input Hypothesis

LC Lexical Complexity

LD Lexical Diversity

L-LRE Lexical- Language Related Episode

LRE Language Related Episode

M-LRE Mechanics -Language Related Episode

MOHE Ministry Of Higher Education

MTLD Measure of Text Lexical Diversity

NH Noticing Hypothesis

NLP Natural Language Processing

NNS Non-Native Speakers

NR New Rhetoric

NS Native Speakers

OAAA Oman Academic Accreditation Authority

OH Output Hypothesis

OPT Oxford Placement Test

SCT Socio Cultural Theory

SD Standard Deviation

SFL Systemic Functional Linguistics

SLA Second Language Acquisition

TESOL Teaching English to Speakers of Other Languages

TTR Type Token Ratio

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