



**Developing critical thinking in EFL learners within the perspectives
of CHAT: the case of Oman**

By:

Thushara Manouri Samarasinghe

A thesis submitted in partial fulfilment of the requirements for the degree of
Doctor of Education

The University of Sheffield
School of Education

December 2017

Abstract

The Sultanate of Oman is situated on the Arabian Gulf in the Middle East. It has invested enormously in the education and training of its people. However, recent reports on Oman's development, as well as educational articles by Omani scholars, highlight that many Omani graduates lack critical thinking skills (Ministry of Education & The World Bank Report, 2016; Thakur & Al-Mahrooqi, 2015; Mehta & Al-Mahrouqi, 2014). Situated within the context of Oman's only national university, a qualitative case study was conducted on 11 English as a foreign language (EFL) teachers and 10 EFL learners. Informed by socio constructivist perspectives that Cultural-historical activity theory (CHAT) provides, this study aims to identify effective teaching and learning practices that contribute to the development of critical thinking skills that can then be integrated into EFL teaching. This thesis contends that the development of critical thinking in Omani learners through EFL education at university level is important because EFL teaching can provide the necessary affordances by incorporating the perspectives of CHAT. Results indicate that the creation of constructivist learning environments (CLEs) that enable diverse scaffolding techniques, promoting social interaction, development of meta-cognitive skills (Richardson, 2003), use of open-ended questioning (Paul, 1990), teacher-modelling of strategies (Bailin et al., 1999b), and purposeful practising of tasks for development/transfer of skills (Halpern, 1990) are effective strategies that can foster critical thinking. Focusing on the development of these key strategies can be an effective approach for EFL teachers to adopt to help improve the critical thinking skills of their learners. It is hoped that the findings of this study can be theoretically advanced to situations other than the chosen sample. The study hopes that Omani EFL learners will achieve their educational goals and will be prepared to face the challenges of 21st century jobs through their enhanced critical thinking.

Acknowledgements

I have always appreciated people's help but at the end of the journey of this study, I understand the magnitude of someone's help when help is really needed. My deepest gratitude is reserved for the teachers that I met in Sheffield in March 2016. I call them teachers because to me, they are teachers in the true sense of the word. I will always be grateful for their advice in the form of incredible wisdom they bestowed upon me, without which this work would not be possible.

Next, I need to mention how grateful I am to Dr Mark Payne for his continued support and guidance over the years, and above all, for being patient with me despite all my faults. I do thank my mother, my two sisters, and my brother for their advice, long-distance support, and patience with me. Among my friends and colleagues in Oman, I am grateful to Dr Vindhya, Dr Allison, Robert Smith, Melissa, Dr Fatima, Keith, Moin, Dr Misbah, Robert Poulton, Dr Khalfan, Dr Norma, and Kristina for their love and support throughout this endeavour. I will cherish the memories of you.

I extend my thanks to my research participants (both teachers and students) for offering their wisdom and support. I owe you more than I thank you for because you made this study better with your presence! Finally, I thank Samantha for supporting me from the beginning to the end of this journey in every way. I can never repay your help, kindness, or patience with me. To complete my acknowledgements, I thank my Cooky who sat next to me as long as he could with unconditional love.

Contents

Abstract	ii
Acknowledgements	iii
Chapter One: Introduction	9
1.1. A brief description of CHAT	9
1.1.1. The first of the three generations of CHAT	10
1.1.2. The interpretations of CHAT	13
1.1.3. Implications of CHAT for my research	14
1.2. Rationale for the research	16
1.3. The statement of problem	19
1.4. Aims and objectives and the research question	20
1.4.1. Sub-research questions	20
1.5. Theoretical framework of the study	22
1.6. Summary of chapter one and research overview	23
Chapter Two: The context of research	24
2.1. Introduction to chapter two	24
2.2. The context of Oman	24
2.3. Higher education in Oman	27
2.3.1. Oman’s national university: Sultan Qaboos University (SQU).....	27
2.3.2. The Language Centre at SQU.....	28
2.3.2.1. The Foundation Program (FPEL).....	29
2.3.2.2. Credit English Language Programs (CELP)	29
2.4. Important academic documents of the LC	30
2.5. EFL teaching and contextual issues	30
2.6. Importance of critical thinking in education in the context of Oman	32
2.7. Summary of chapter two	36
Chapter Three: Literature Review	37
3.1. Introduction to chapter three	37
3.2. Definitions of critical thinking	38
3.2.1. Characteristics of critical thinkers	40
3.2.2. Dispositions of critical thinking:	41
3.2.3. Critiques and issues of critical thinking	42
3.2.4. Key components of critical thinking	45
3.2.4.1. Problem-solving skills	45
3.2.4.2. Creative thinking skills.....	46
3.2.4.3. Meta-cognitive skills	46
3.2.4.4. Background knowledge	47
3.2.4.5. Syllogism as informal logic.....	47
3.2.4.6. Orienting learners to notice	48

3.2.4.7. Language proficiency (L2)	48
3.2.4.8. Motivation	49
3.3. What kind of a skill is critical thinking?	51
3.4. Transferability of critical thinking skills.....	52
3.5. Assessment of critical thinking skills	53
3.5.1. Critical thinking tests.....	53
3.6. Cultural assumptions about developing critical thinking in students	54
3.7. Developing critical thinking in general education	56
3.8. Critical thinking in EFL education.....	57
3.9. Teaching implications	59
3.10. Constructivist perspectives to developing critical thinking	62
3.10.1. Dewey’s active constructivism.....	63
3.10.2. Piaget’s Cognitive constructivism.....	66
3.10.3. Vygotskyan social constructivism.....	70
3.11. Context-specific research on fostering critical thinking within EFL education.....	77
3.12. Summary of chapter three.....	79
Chapter Four: Research Methodology	81
4.1. Introduction to chapter four: research questions and the overall research design.....	81
4.2. The chosen research paradigm: qualitative paradigm	83
4.3. Research methodology: a case study	86
4.4. Data collection tool: semi-structured interviews	90
4.5. Sampling.....	95
4.6. Designing case studies: maintaining the trustworthiness of the research	98
4.6.1. Credibility	98
4.6.2. Dependability	99
4.6.3. Transferability	99
4.6.4. Confirmability	99
4.6.5. Reflexivity.....	102
4.6.6. Pilot study.....	103
4.6.7. Data analysis: thematic content analysis	105
4.7. Addressing the ethical issues in research conduct.....	109
4.8. Summary of chapter four	112
Chapter Five: Pilot Study	114
5.1. The analysis and discussion of the pilot study	114
5.2. The analysis and the discussion of the pilot study	114
5.3. Summary of chapter five.....	116

Chapter Six: Findings and Discussions	118
6.1. Introduction to chapter six	118
6.1. The analysis of student perspectives	120
6.1.1. SUB-RESEARCH QUESTION 1:	120
6.1.1.1. Defining the concept of critical thinking	120
6.1.1.2. The qualities of critical thinking	120
6.1.1.3. Habits of critical thinkers	122
6.1.1.4. Importance of developing critical thinking in Omani learners	123
6.1.2. SUB-RESEARCH QUESTION 2	125
6.1.3. SUB-RESEARCH QUESTION 3	126
6.1.4. SUB-RESEARCH QUESTION 4	130
6.1.5. SUB-RESEARCH QUESTION 5	132
6.1.6. Discussion of the findings of the student perspectives	136
6.2. The analysis of the teacher perspectives	139
6.2.1. SUB-RESEARCH QUESTION 1	139
6.2.1.1. Defining the concept of critical thinking	140
6.2.1.2. Qualities of critical thinkers	141
6.2.1.3. Developing the habits of critical thinking	142
6.2.1.4. Importance of developing critical thinking in Omani learners	142
6.2.2. SUB-RESEARCH QUESTION 2	145
6.2.3. SUB-RESEARCH QUESTION 3	147
6.2.4. SUB-RESEARCH QUESTION 4	151
6.2.5. SUB-RESEARCH QUESTION 5	153
6.3. The discussion of the findings of teacher analysis	159
6.4. Summary of chapter six	164
Chapter Seven: Conclusions	167
7.1. Introduction to chapter seven	167
7.2. summary of findings: answering the main research question	167
7.3. Contributions of my research	176
7.4. Limitations of this research	178
7.5. Recommendations for future research	179
7.6. Researcher reflections	180
References	181

APPENDICES:

Appendix 1:	Student consent forms: SQU LC research committee	198
Appendix 2:	Participant Information Sheet	202
Appendix 3	Semi-structured interview questions- thematically arranged	204
Appendix 4	Copy of pilot interview transcript	206
Appendix 5	Newspaper article/cutting about critical thinking	210

List of figures

Figure 1 Flag of Oman	25
Figure 2 Map of Oman	25
Figure 3 Profiles of workforce	34
Figure 4 A basic representation of mediated action triangle (CHAT)	70

List of tables

Table 1 Characteristics of critical thinkers	40- 41
Table 2 Goals in adopting an approach to critical thinking	60- 61
Table 3 List of teacher and student participants under pseudonyms	97
Table 4 The six steps of thematic analysis that this study followed	106- 108

Key words

- **L2** = Second language
- **EFL** = English as a foreign language
- **ESL** = English as a second language
- **CHAT** = Cultural-historical activity theory
- **SQU** = Sultan Qaboos University
- **Knowledges** = I use knowledges to indicate the integrated knowledge categories, including knowledge that, knowledge how, knowledge of language.

Author's declaration

I declare that this dissertation is the result of my own work, and that explicit reference is made when recognising the contributions of others. Secondly, this work has not been submitted for any other degree at the University of Sheffield or any other institution.

Name: Thushara Manouri Samarasinghe

Signature: *Thushara Manouri Samarasinghe*

Date: Nov.30th, 2017.

Chapter One: Introduction

1.1. A brief description of CHAT

Cultural-historical activity theory (CHAT) is a theory that explains how individuals develop their consciousness. It espouses that individuals create their own meanings of the world by engaging in social interaction (Lunenburg, 2011; Larochelle et al., 2009; Daniels, Cole, & Wertsch, 2007; Airasian & Walsh, 1997). CHAT centres on the Vygotskian theory of mediated action though its roots that trace back to the 19th century German philosopher, Goethe and Marx (Blunden, 2010). The current interpretation of CHAT owes its development to Vygotsky's students, colleagues, and several modern scholars, including Leont'ev, Lantolf, Cole, Wertsch, and Engeström who continue to enhance it in diverse ways (Daniels, Cole, & Wertsch, 2007).

The name, CHAT has been invented by Cole (1996; 2007, cited in Blunden, 2010, p.3) and each word of the theory's name signifies a meaningful aspect. Culture holds the prominent place within the theory, indicating that an individual's environment is the socio-cultural milieu that interprets meanings, through their historical significance (of these meanings). Hence, individuals and their actions are embedded within the social practices, and individual actions make sense in relation to their context-specific cultural values rather than in isolation (Daniels, Cole, & Wertsch, 2007; Fleury, 1996).

Secondly, in CHAT, the term culture is followed by the phrase historical, implying that "...cultures are grounded in histories" (Foot, 2014, p.3). The "historical" aspect of CHAT translates that any human action has a historical perspective to it, and examining this historical value enhances the understanding of the current action. Therefore, in any analyses that CHAT is a part of, people's actions are considered in light of their historical importance. Thirdly, within CHAT, the word 'activity' epitomises that activity means a system of actions pursuing an object. An activity has intention, motive, action, as well as a goal which depict a range of outcomes (Leont'ev, 1978). The presence of these phenomena within the activity indicates that the motive of the object visualises these phenomena as requirements of the task that in fact, the society demands in reproducing the task. This also implies that an activity is a relation between the subject and object and that understanding the activity leads to the

uncovering of the psychological significance of actions because actions are a part of the activity (Blunden, 2010). Thus, CHAT recognises activity as the unit of analysis in evaluating the actions of people's daily lives. The recognition of activity (from action) in the activity theory has been one of the significant contributions of Leont'ev (Blunden, 2010). These key phenomena of culture, activity, and the way individuals interact are represented in CHAT through subject, object, and artefact. They emulate a theoretical triangle, explaining how they contribute to ontogenesis (further discussed on pp.70-77 of this research).

CHAT has been recognised as an interdisciplinary framework since scholars from different domains collaborate and theorise about its significant theoretical constructs, in addition to communicating using a common language (Blunden, 2010). Some of the major focus of contemporary research in relation to CHAT include, the environment, culture, knowledge within individuals, the role of input (signs/artefacts), problem-situations, and motivation for problem-solving in relation to educational settings (Blunden, 2010; Lantolf & Thorne, 2006). The significance of these concepts in learning and teaching has enhanced CHAT's position within today's educational systems as a theory of knowledge and learning (Lunenburg, 2011; Larochelle et al., 2009; Airasian & Walsh, 1997). In the domain of education, CHAT inspires a profound understanding of the ways that different learning activities can instigate learning in different ways.

1.1.1. The first of the three generations of CHAT

Vygotsky is considered the first generation of CHAT since the theory centres on the Vygotskian concept of mediated action. Vygotsky, who was a Russian philosopher and a psychologist living during the 1917 Russian revolution, focused on exploring a psychological approach that could explain human development. Subsequently, he arrived at the stance that it is the interaction between an individual and his/her environment that enables the development of human consciousness. According to Blunden (2010), Vygotskian views were introduced to the Western world through the English translations of 'Thought and language' (1962) and after his death, 'Mind in society' (1978).

The rationale of Vygotsky's theory of mediated action was that humans are not passive, they instigate their own meaning-making processes by interacting with the social others in the environment (Vygotsky, 1962). Vygotsky (1978) explained how individuals use different artefacts (physical tools and mental tools such as language) in different ways in achieving

goals, supporting the notion that all actions are mediated (Scribner, 1997). The process of mediated action includes interaction among the individual, artefact, activity, and sign. A sign is seen as a semiotic that generates an abstract impression, resulting from interaction and a sign facilitates the meaning-making process.

CHAT comprises the fundamental social constructivist principles. The perspectives of CHAT imply that that knowledge is emergent (resulting from interaction), non-objective, and developmental (Laroche et al., 2009). This is supported by the idea that individuals' age and mental capacity can affect how they interpret their social environment (Vygotsky, 1979). For example, a book can mean different things to individuals who have different capabilities, and are of different ages (van der Veer, 2007). Therefore, knowledge is non-objective and emergent as knowledge is constructed by individuals with diverse understandings.

Vygotskian perspectives within CHAT have been recognised for their greater impact in education. Many education systems across the world today centre the notion that "...human mind must be understood as the emergent outcome of cultural-historical processes" (Daniels, Cole, & Wertsch (2007, p.1). Consequently, learning activities are designed in ways that promote and elicit individual thinking. Similarly, instead of treating students as empty bowls that need to be filled with objective knowledge; contemporary educationists focus on enabling students to create knowledges using what students already know (Brooks & Brooks, 1993).

CHAT rationalises how knowledge develops through the process of mediation within the zone of proximal development (ZPD, see below and pp.73-75) as Lantolf (2000) highlights. Supporting this stance, Cummins et al. (2005) provide greater insight into how students develop knowledge through social interaction in multi-cultural academic environments. Through their findings, Cummins et al. highlight how teachers' acknowledgement of their students' native languages, existing knowledge, and capabilities stimulate students' knowledge and skills, as mediating tools in creating knowledges. Clearly, by treating students' thinking as "...emergent outcomes" (Daniels et al., 2007) teachers can draw their students to construct knowledges collaboratively, using the two higher thinking tools of L1 and L2.

The "...individual mental development is the gradual internalisation and transformation of socially constructed shared activities" as Arieievitch (2003, cited in Feryok, 2012, p.97) writes. Arieievitch' shares the Vygotskian (1978) stance that an individual's mental (cognitive) development is facilitated when he/she is given assistance to close the cognitive gap. Vygotsky described this theoretical distance between what a learner can achieve individually, and what can be achieved by that learner with the assistance of a knowledgeable other (usually an adult), as the zone of proximal development (ZDP, further discussed on p.67). The assistance can be physical learning materials such as certain tasks, materials, or cognitive assistance through the use of more knowledgeable others (MKO), such as adults and peer (Wertsch, 2007).

Vygotsky also explained that mental formations can be developed in individuals by reforming how cultural tools (physical/ psychological) are used. This notion has become a fundamental principle of learning and skill development across the domains of education, including English as a second/ foreign language teaching. Educationists have adopted it in diverse ways, focusing on enabling/ enhancing higher mental functions in transforming human thinking. A study by Meredith (2003) on developing reading and writing skills through an English language learning (ELL) course reveals how adopting social constructivist learning perspectives, especially, focusing on building students' background knowledge and student-centred teaching, have left positive impacts in learners. Her study reveals that ELL students demonstrated their ability to contextualise information deeply and meaningfully (compared to surface-level understanding) as a result of adopting these principles of CHAT. Furthermore, Meredith also supports the need to focus on the teacher's role in a constructivist learning environment (CLE) consistent with the Vygotskian stance that teachers are facilitators as the more knowledgeable other, assisting (scaffolding) learners. Meredith's study exemplifies that the fundamental role of the teacher in a constructivist environment is mediating.

Moreover, in relation to mediation, the relationship between language and thought was an area of special interest for Vygotsky (Cole & Wertsch, 1996). Discussing the characteristics of thought, Vygotsky gravitated towards the idea that thought is often manifested in a word, an image, or in an action (deed); and that thought is, by its nature, elusive to the naked eye (Zinchenko, 2007). One of Vygotsky's many references about language and thought asserts

that the relationship of thought to word is not a thing but a process, i.e. a movement from thought to word and from word to thought. Affirming, psychological analysis indicates that this relationship is a developing process which changes as it passes through a series of stages, implying that the movement of thinking from thought to word is a developmental process. (Vygotsky, 1987, cited in Wertsch, 2007, p.186).

The oscillation from thought to word and word to thought depicts the complex nature of defining thinking and its development in humans. This movement of thought implies how language acts as an implicit tool (sign/artefact) of mediation in thought-building and expression, as thought is mediated by words that depict explicit meanings. However, "...meaning is related not to thinking, but to the whole of consciousness" for Vygotsky (1982, cited in Zinchenko, 2007, p.226). Therefore, consciousness development becomes a self-regulated meaning-making process for individuals, when they take part in social interaction (shifting meaning from word to thought and thought to word). A profound understanding about consciousness and meaning requires an examination of immeasurable depth. However, as implied in the above discussion, since the relationship between the word and its meanings leads to consciousness development; this process can enhance the learning of languages. In light of that, since L2 learning contributes to developing the language skills of learners; L2 teaching can also enhance individual thinking.

1.1.2. The interpretations of CHAT

CHAT owes its development largely, to a second generation of social constructivists, including Leonti'Ve, who was a student of Vygotsky (Blunden, 2010). Leonti'Ve is also considered the architect of the Activity Theory known today. He identified action (within the theory of mediated action) from activity, defining it through the relation between the object and the subject. He explained activity as the unit of analysis, comprising the three levels of operation, action, and the activity. Leonti'Ve positioned activity at a higher level of goal-oriented actions (rather than in the sense of everyday activities), explaining the need to understand an activity within its context as cultural-historical background (Blunden, 2010; Kaptelinin, 1996).

An important aspect of the activity theory is that within the activity, physical and mental separation is not given consideration. The underlying reason is that separation between the mind and body can hinder understanding (of the viewer) and the carrying out of the activity

by the subject. Therefore, one of the implications is that both the aspects of mind and body (mental and physical) are related to each other when carrying out a task. The argument is that though it is possible to separate the two aspects within an activity; understanding them separately can be challenging and possibly fruitless. Hence, the interconnectedness of the subject, object, and the artefacts (tools/practices that mediate the action) within the theoretical triangle of CHAT is rationalised. Clearly, many contemporary scholars, including Cole, Engeström, Wertsch, Lantolf, Luria, Bruner, Kozulin, Kaptelinin, and Rogoff have made significant contributions to the development of CHAT in many ways (Blunden, 2010; Daniels, Cole, & Wertsch, 2007).

The third generation of CHAT is credited to Engeström (1993) who also built on the original theory of mediated action and the activity theory. He theorises that cultural tools (language, practices, or technology) influence (mediate) an individual's (subject's) action on the object. Engeström's (1993) extended explanation of activities widens the lenses to examine how subjects (individuals/professionals) carry out activities within the larger community which comprises rules/norms, indicating the division of labour in diverse ways. He identifies motive as the force that drives an activity, in addition to the object that the activity is oriented for within the social milieu.

1.1.3. Implications for my research

Clearly, the interpretations of CHAT can provide wider scope for research. However, this study centres on the version that originated from the theory of mediated action, transforming 'action' into 'activity'. In my view, this version facilitates focus on the important concepts of mediation, higher mental functions and tools, interrelation between language and thinking, ZPD, scaffolding, internalisation, and collaborative learning. They are the fundamental concepts that contribute to the development of individual consciousness, enhancing the knowledge construction process in teaching and learning. Contributing to the recognition of the interrelationship between these concepts and the educational process; Vygotsky's stance that "...teaching should promote general mental development as well as the acquisition of special abilities and knowledge" (cited in Daniels, 2007, p.315) reflects the centrality of the principles of CHAT in my study. In support, global research (Kwek, 2011; Abrami et al., 2008; Snyder & Snyder 2008; Miri, David, & Uri, 2007; Richardson 2003; Kaufman 2004; Appel & Lantolf, 1994; Airasian & Walsh, 1997; Brooks & Brooks, 1993; Lave & Wenger,

1991) continues to demonstrate how CHAT provides a rich framework to enhance pedagogy and andragogy.

Similarly, several context-specific EFL studies from Oman emphasise the effectiveness of CHAT in enabling learning and fostering critical thinking. Among these key studies, Tuzlukova, Al-Busaidi, & Burns (2017) focus on exploring the effective language teaching methodologies that contribute to fostering critical thinking in EFL education. They investigate EFL teacher-understandings about critical thinking and conclude that to teach critical thinking; teachers need to be able to explicitly express what critical thinking means (also Paul, 1993; 1990).

Furthermore, Al Khoudary (2015) examined how the role of writing in EFL teaching contributes to fostering critical thinking. He recommends the integration of critical thinking skills into EFL writing classrooms. Similarly, Mehta & Al-Mahrouqi (2014) discuss the ways that critical thinking can be explicitly taught in EFL contexts. Situated in an English language and literature teaching context; their study highlights the significance of focusing on fostering critical thinking within the current teaching approaches. Mehta & Al-Mahrouqi (2014) identify the value of overt instruction in developing critical thinking skills in EFL teaching, supporting the stance of my own research.

Moreover, Emeyonu (2012) highlights that learner-centred approaches are crucial for developing critical thinking in learners. Examining contextual interpretations of student-centred learning in Oman, he reveals that the adaptation of learner-centred approaches in EFL education is often challenged by students' cultural perceptions. Thus, Emeyonu identifies the need to raise awareness of learner-centred approaches in the educational contexts.

In sum, by discussing not only the positive aspects, but also the challenges to implement constructivist teaching approaches within EFL teaching; these key studies raise awareness of the need to fostering critical thinking in Omani learners within EFL education. Hence, my study constantly refers to these context-specific scholarly works, because they are key sources of sustenance for my study, which commenced in 2010. The important contributions that these studies make to the context and towards the topic of my study will be discussed in detail under the literature review.

1.2. Rationale for the research

This research focuses on developing critical thinking in EFL learners in the academic context of Oman. This objective has been influenced by the current educational practices at university level in the context. To be more specific, one of the statements of objectives of Sultan Qaboos University states that it focuses on producing specialist and expert job candidates to be employed in diverse fields in Oman by: (a) taking into account the changing needs of marketplace, (b) working within the framework of state policy on resource development, and (c) by promoting creative thinking (SQU homepage, n.d.). However, while developing creative thinking is an important aspect of education, to be skilled experts in diverse fields of employment and successfully face the challenges of ever-changing market places; Omani learners need to develop critical thinking. Critical thinking has been widely recognised as an important 21st century skill (American Colleges of Education Association, 2013; Al-Mahrouqi, 2012; Johnston et al., 2011; Lunenburg, 2011; Stuart & Dahm, 1999).

Research establishes that critical thinking is one of the most important concepts in education in both teaching and learning (Mehta & Al-Mahrouqi, 2014; Johnston et al., 2011; Lunenburg, 2011; Mulnix, 2010; Ennis, 1996). For instance, a recent research by Bok (2006) reveals that more than 90% of faculty members across universities in the United States consider critical thinking as "...the most important goal of an undergraduate education" (cited in Haynes et al., 2016, p.45). The importance of critical thinking in the field of EFL education has been identified for its relevance to language learning, applicability in subject learning, and scope to produce meaningful learning experiences (Tuzlukova, Al-Busaidi, & Burns, 2017; Thakur & Al-Mahrouqi, 2015; Johnston et al., 2011; Shirkhani & Fahim, 2011; Halvorsen, 2005). The experts of critical thinking (Mehta & Al-Mahrouqi, 2014; Johnston et al., 2011; Bailin et al., 1999b; Ennis, 1989) exemplify how the interdependent interrelationship between language learning and thinking provides the necessary affordances to develop critical thinking in L2 learners. In light of that, L2 learning can be considered as an essential tool that contributes to develop language learning, skills development, and critical thinking (Johnston et al., 2011; Mulnix, 2010; Richardson, 2003; and Brooks & Brooks, 1993).

The idea of developing critical thinking in general education (including EFL teaching) has been challenged by the traditional school of thought. Arguing that 'thinking is always

about something' (Vandenberg, 2007; McPeck, 1996, further discussed on pp.42-45); the traditional school of thought implies that thinking develops through domain-specific content education rather than general education. However, following Ennis (1989); the current study argues that in general education, skills are not taught in isolation since learners are always provided with 'something to think about' when teaching the skills (Mehta & Al-Mahrouqi, 2014; Mulnix, 2010; Brooks & Brooks, 1993). In light of that, general education (and EFL education) affords focus on developing critical thinking. Moreover, as EFL teaching focuses on developing life skills within regular teaching practices (EFL skills for future careers); focusing on the development of critical thinking (through EFL teaching) can also be considered as developing an important life skill that promotes learning, helping to widen the scope of professional endeavours.

In addition, this study considers researcher positionality as a rationale for instigating this research. As an experienced practitioner with the well-being of students at heart, I observed that many of my students often fall short in achieving academic excellence, mainly due to a lack of critical thinking abilities. Therefore, based on a brief evaluation of the stipulated 'learning objectives, learning contents, and learning outcomes'¹, I came to the realisation that students need help to achieve their learning goals. Since I noticed that they perform their learning tasks more effectively, when they are scaffolded through well-designed learning activities that enable analytical thinking and critical thinking, this realisation has inspired me to reach for the goal of arguing for fostering critical thinking in my learners in EFL teaching.

In my view, twenty-two years of experience in EFL teaching, including my ten years of teaching experience in Oman, can enable reflection on the aspects and issues in relation to one's practice and contextual concerns. O'Reilly's (2012) stance that reflexivity relates to 'the wider conditions under which knowledge is produced' supports my view. Therefore, making the others aware of the beliefs, habits, and traditions that I value can indicate 'where the researcher is coming from' (Opie, 2010), enabling the others to see the 'wider conditions'. Through such an understanding, a researcher can create a shared history that contributes to meaningful interpretations, implying why researcher positionality becomes a rationale in this research.

¹ I compared my students' end-of-semester exam marks and learning objectives only within the course that I was teaching at SQU, between 2009 fall and 2010 spring.

To begin with, my experiences of being an EFL learner continue to enrich my experiences as an EFL teacher. For instance, they often prompt reflection on the strengths, and weaknesses of many learning strategies that I experienced as a learner, enabling effective ways that enhance some of those learning strategies in my learners. I was an ESL learner, since English was taught as the second language in my country. I was born in Sri Lanka where the culture and traditions are valued more than education, requiring me to respect the religion, the socio-cultural values, worship parents and teachers, but above all, revere books. Among these values, questioning of neither the traditions nor the people did not have a place. I had never heard about critical thinking (even as a teacher in Sri Lanka) until I started my masters course (MA in ELT) at the University of Southampton in the United Kingdom.

I developed my strong love for the English language because as a child, I studied in a Catholic convent where English-speaking nuns and teachers, English hymns and piano music, and a library full of musty English novels made a big impression on me. Compared to government school teaching where English was neglected in general, 40 years ago; this Catholic convent provided the basic facilities that promote reading. The most important feature was that there was a teacher throughout the year to teach English, unlike in many government schools at that time. I eventually became a qualified ESL teacher and worked in both Sri Lanka and The Maldives. Then, after completing my MA degree in English language teaching (TESOL) in the UK; I joined a private university college in Oman and two years later, I joined Sultan Qaboos University (SQU) where I am currently employed.

I have always enjoyed teaching irrespective of my students' behaviour; whether they are well-behaved or unruly. However, teaching Omani students is an exceptional privilege, because they are always well-behaved in classrooms, wonderfully cooperative, and respectful of their teachers. While I adored my students for their human qualities; I also noticed that their own cultural influences had more control over them than their own will, when it came to behaving as active learners in EFL classrooms. It was clear that when teachers encourage them in learner-centred environments, many students would try to be active learners and participate in classroom dialogue; however, they would all go back to be the timid learners in more teacher-centred classes. Meanwhile, through my trials, I observed that the regular practice of questioning, reading with awareness, focus on the process of

writing rather than the product, and engaging students in group work have influenced my students to become more aware of their own learning. Knowledge of these aspects of teaching became central during the latter half of my study.

In my third year of teaching at SQU, I came across Professor Rosamond Mitchell's research work on critical thinking. She was my teacher in the MA program at The University of Southampton. The awareness of the learning problems of my students drew me closer to her work (Johnston et al., 2011), influencing my decision to pursue higher education and the current research topic. I realised that pursuing a higher degree is a greater opportunity to learn how to foster critical thinking in my students and an effective way to raise awareness of the EFL community, benefitting me in many ways. Therefore, I applied to The University of Sheffield as a candidate for an Ed.D degree, because it offered a distance Ed.D program, which I could join while teaching. I must admit that I was fully aware of the seriousness of the commitment that I was making as a fulltime teacher in Oman, participating in a distance-learning program at Sheffield. However, I also admit that I had no idea how uncritical I was; compared to what my research topic indicates, until I reached the last few pages of my dissertation.

Amidst the difficulties of this personal investment, I consider it a privilege to suggest a rational solution that makes EFL teaching more meaningful to my learners, especially, compared to the surface-level language-teaching that often takes place through fun-games at university level (Pessoa & Freitas, 2012). I consider my study as a privileged-journey that I have taken with my students and colleagues. For, to share their views and concerns and be able to offer a long-lasting rational suggestion to alleviate those concerns is, indeed, a privileged position.

1.3. The statement of problem

The Omani government has made huge investments in education and training of the Omani nationals (Oxford Business Group, 2014; Romano & Seeger, 2014; Al-Busaidi, 1995). On par with this knowledge; the national policy of Omanisation estimated 80% of Omani employment within different sectors of the national employment market by year 2010 (MoE, 1996). However, as national statistics reveal, many of the national educational objectives have only met marginally (Romano & Seeger, 2014; World Bank data for Oman, 1991-2014).

Moreover, recent national and international reports on Oman's development highlight many socio-economic and political reasons for lack of realization of the national educational policies (MoE & The World Bank Report, 2016; Romano & Seeger, 2014; Oxford Business Group, 2013). They highlight that Omani graduates' lack of analytical and critical thinking skills in relation to job performance can cause negative repercussions in the competitive Middle Eastern job market. Sharing the view, many Omani scholars (Tuzlukova et al., 2017; Thakur & Al-Mahrooqi, 2015; Mehta & Al-Mahrouqi, 2014) raise the need to developing critical thinking in Omani learners, equipping them for the 21st century jobs that await them.

1.4. Aims and objectives and the research questions

The main aim of this research includes finding out the ways that EFL teaching can develop critical thinking in learners at university level in the context of Oman. Towards this goal, this research explores how the principles of socio-constructivism translate into effective teaching practices that can be integrated into EFL classroom teaching. Hence, the main research question of the study asks,

What are the ways that EFL teaching, within the perspectives of CHAT, can develop critical thinking in learners at university level in the context of Oman?

In my view, in order to answer the main research question; the themes that are embedded within the main research question need to be explored. With this purpose in mind, I developed six sub-research questions to gain the participants' perspectives on the key aspects that are embedded within the main research question, as shown below.

1.4.1. Sub-research questions

1. Why is developing critical thinking in Omani students important?
2. In what ways/whether the current EFL teaching practices contribute to develop critical thinking in learners?
3. In what ways can the constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in EFL learners?
4. What are the out-of-classroom contextual elements that can contribute to developing critical thinking in EFL learners?
5. What are, if any, classroom/social factors that can be barriers to developing critical thinking in learners?

6. What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching?

The rationale for incorporating the first sub-research question is that asking, ‘why it is important for the Omani learners to develop critical thinking’ provides reasons for doing so, which also justifies this research. Moreover, the second sub-research question is designed to further enhance the need to foster critical thinking, informing whether/how the current teaching practices contribute to fostering critical thinking.

The third sub-research question plays a deciding role in this research. It asks participants to identify the ways that constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in EFL learners. In order to do so, participants’ awareness about (a) what critical thinking means, (b) why developing critical thinking is important for the Omani learners, and (c) whether/how the current contextual teaching practices contribute to foster critical thinking, is raised. Moreover, as the fourth element, awareness about (d) the constructivist principles that relate to the learner-centred teaching practices is raised in learner participants; in order to elicit their views under sub-research question three.

The fourth question asks the research participants to identify the ways that the out-of-classroom aspects of their lives influence the development of critical thinking. Therefore, the fourth sub-research question attempts to establish a link between formal learning and the social context, based on participant understandings. The fifth question is an extension of the fourth question, asking the participants to recognise the classroom/social factors that can hinder the development of critical thinking. Finally, after raising awareness about these key issues, participants are asked to identify effective teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching, which they can do by reflecting on their own experiences.

In sum, these sub-research questions contribute to establish the need to focus on developing critical thinking in EFL education in the context of Oman, identifying the contextual socio-cultural stances and hindrances to recommend the teaching practices that are effective and context-appropriate.

Moreover, both participant views gained through these key questions will be analysed, and discussed separately, under the two sections of student discussions and teacher

discussions. Then, drawing from both student and teacher discussions, this study attempts to answer the main research question through the following three aspects of:

- i. What is the teacher role in the constructivist EFL classroom in developing critical thinking?
- ii. What comprises the learner role in the constructivist EFL classroom in developing critical thinking?
- iii. What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching?

1.5. Theoretical framework of the study

The main research question and the six sub-research questions are informed by the theoretical perspective of this research, which centres the Vygotskian (1979) stance of social constructivism. Vygotsky implies that individuals develop by constructing their own knowledge, collectively and individually through social interactions. Vygotskian theory of social constructivism relates to education as a theory of knowledge and learning (Richardson, 2003; Airasian & Wolf, 1997; Fosnot, 1993; Brooks & Brooks, 1993).

The principles of social constructivism are represented in cultural-historical activity theory (CHAT). Through its fundamental concept of mediation, CHAT explains ‘knowing’ and ‘how one comes to know’. Thus, CHAT has become the key framework of constructivist teaching/learning approaches. Hence, on the premise that individuals develop through social interaction; formal learning focuses on enhancing individual development. In order to do so, formal learning centres constructivist learning environments (CLEs) and scaffolding, using more capable peers and teaching/learning materials within the abstract zone of proximal development (ZPD).

Social constructivism indicates that the development of mind (development of individuals) depends on social interaction, where language is used as the highest cultural tool of mediation (Lantolf & Thorne, 2007; Vygotsky, 1978). Therefore, since language and thinking are interrelated and interdependent, developing each other; language teaching that involves two of the highest cultural tools of mediation (L1 and L2) has a higher capacity for developing thinking.

1.6. Summary of chapter one and research overview

In sum, chapter one offers a brief discussion about the historical perspectives and the development of CHAT, which is a central theme of this study. In doing so, this study identifies the key principles that CHAT contributes to enrich fostering critical thinking in EFL teaching. Chapter one also discussed the rationale of this study, mentioning the primary reasons that prompted this research. This was followed by an explanation about the aims of the study, indicating the main research question and the sub-research questions. Subsequently, a brief discussion of the theoretical framework of the study is provided before the conclusion of chapter one.

Chapter two includes an overview of the context of research, highlighting its current educational characteristics. This chapter strives to look at the contextual cultural assumptions that may influence the fostering of critical thinking in EFL education positively or negatively. Chapter three provides a review of the related literature, examining the key components and challenges to fostering critical thinking in education. Chapter three also examines the three main schools of constructivism that derive from Dewey's active constructivism, Piaget's cognitive constructivism, and Vygotsky's social constructivism. The discussion on the teaching implications examines how the key constructs of the three paradigms contribute to form teaching approaches that promote critical thinking.

Chapter four introduces the methodology of the research, discussing the data collection procedure, sampling, the steps of data analyses, triangulation of data, and how the ethical issues have been addressed. This is followed by chapter five that presents the findings of the pilot interview, analysing its impact on some of the key aspects of the research conduct.

Chapter six offers a detailed account of the participant views that are analysed, using thematic data analyses. Therefore, it includes the analyses of student and teacher perspectives gained under the five sub-research questions. Each analysis concludes with a discussion that contributes towards the recommendations of this study. Chapter seven is the final chapter, and it attempts to answer the main research question by drawing from the summary of the findings, the literature review, and the theoretical stance of this study. Chapter seven also discusses the research implications, limitations, the significant contributions of this research to knowledge, and future recommendations, with a glimpse of the researcher reflections.

Chapter Two: The Context of Research

2.1. Introduction to chapter two

Chapter two provides a comprehensive look at the context of research. Hence, this chapter starts with a brief explanation about Oman's geographical position and socio-cultural characteristics, leading to a look at the cultural-historical aspects of the Omani traditions which sets the background to the context and its current situation. This is followed by an explanation about Oman's socio-academic stance that builds up on the academic landscape of the country.

Moreover, a closer look at the objectives and outcomes of the academic programs can enhance the understanding of the national academic and socio-economic expectations since educational policies are formed to achieve those expectations. In light of that, chapter two takes the opportunity to use four important academic documents as sources of knowledge that also fulfil the task of substantiating the academic claims of the research participants.

Similarly, since EFL teaching is one of the primary tools to realising the national goal of 'Omanisation'; this chapter attempts to examine some of the socio-academic and contextual characteristics that impact on EFL teaching thereby affecting the achievement of the national academic goals. In doing so, the chapter identifies that fostering critical thinking in EFL education can contribute to achieving the national goals.

2.2. The context of Oman

The context of research is the education context of Sultan Qaboos University in Oman. Situated in the Middle Eastern region of the world, Oman enjoys a strategic geographical position that gives an unparalleled advantage to the country. As Barrett (2011) writes, Oman's importance to the Arabian Gulf and the world today "... cannot be exaggerated" because for instance, Oman shoulders its responsibility of protecting the deep-water channels of the Middle East that carry one-fifth of the world's oil daily (p.6). However, since Oman lies just outside the Gulf, its geographical situation is even more valuable geopolitically as its ports will still be able to function, should there be any regional conflicts (The Middle East, 2017). Oman's Ministry of Information (2014) describes its geographical position as,

... located in south-eastern part of the Arab semi- peninsula, ... Its shore extends from Hormoz in the north to Yemen republic in the south, so it is open to three seas: Arab Gulf, Oman Gulf and Arab sea. Bordered by UAE and Saudi Arabia in the west, Republic of Yemen in the south, Hormoz bay in the north, and Arab sea in the eastern border. This location has given Oman its historical role in connecting Arab Gulf states with these countries...
(<http://www.omaninfo.om/english/2014> n.d.; cited in Al-Harhi 2011, p.345).



Figure 1 Omani flag (Ministry of Information, 2013, p.17)



Figure 2 Map of Oman (Ministry of Information, 2013, p.21)

Geographically, Oman is about 80% desert (barren land), containing mountains. Geopolitically, Oman is divided into the three governorates of Muscat, Dhofar, and Musandam with the city of Muscat being the capital of the country. The weather in Oman is

hot and dry in general, although climate can vary across regions. For instance, Dhofar region, which is situated in the southern tip of Oman is famous for its heavy rainy season, attracting thousands of tourists each year for four months of the year. Dhofar and Nizwa are two of the most fertile geographical areas in Oman.

By land, Oman is bordered by the United Arab Emirates, Saudi Arabia, and Yemen as the map of Oman (p.25) shows. However, Oman is still able to enjoy a long coastline of 1,700 km with pristine beaches surrounded by Gulf of Aden, Arabian sea, and the Persian Gulf (Al-Harhi, 2011). Consequently, from the historic times, Oman has been famous for its marine strength. Omani sailors who started trade relations with Asia had travelled to India and China on the famous 'silk route'. Oman's historical relationships travel back to the 6th century trade relations with Egypt, Persia, China, India, and Greece which centred the trading of frankincense, fish, and minerals. The interior of Oman engages in agriculture, mining, traditional handcrafting, and livestock keeping. The ancient nomadic lifestyles that focused on trading, livestock raising, and farming fertile lands have left big impacts on the Omani people. For instance, the Ministry of Education's efforts to educate every child is affected by those culturally influenced traits; as some Omani nomadic tribes still refuse to send their children to schools (MoI, 2002).

The Omani economy has been depending on its oil income since the start of its renaissance era of the 1970s (Al-Badri, 2012). However, considering the non-renewable nature of the source; the Omani government has started focusing on strategic income sources, such as developing gas-based economic development, fishing, mining, tourism, and information technology (MoI, 2002). This shows that despite the slow progress; the Omani government plans to maintain and balance adequate levels of sustainable economic practices. For the purpose of boosting the country's diverse economic activities; the national economic plans and policies have been revisited, introducing accelerated developmental plans that centre the concept of 'Omanisation' (Issan, 1998).

The culture of Oman depicts how the inherent Islamic origins are deeply rooted in every aspect of life (MoE & The World Bank Report, 2013). Supporting the idea, Al-Issa (2002) writes that "...for Arab-Muslims, Islam is not only a religion, but Islam is the core of life"

(p.4). This is exemplified through the way that their lifestyles revolve around the religious institution. In the past, centring the ancient Arabic traditions, the Omani children were educated through the Quranic schools or the “Madrasat Al-Quran” (مدرسة القرآن), which existed for the sole purpose of teaching how to read the sacred script of Quran. Schooling was optional. The tradition required that students are handed over to the teacher by their parents to be ‘socialised and educated’, indicating a teacher’s “...absolute power” over students, which seems to be a continued trait to date (Al-Harthy, 2011, p.352). Modern Oman provides free education and its Ministry of Education makes a strong effort to encourage school attendance among the Omani learners. At the end of school education, Omani students have the option of leaving school at secondary level, join vocational colleges, or opt for university education.

2.3. Higher education in Oman

The central authority for developing and maintaining higher education in Oman is the Ministry of Higher Education (MoHE, 1996). In its attempt to preparing Omani graduates that can meet the socio-cultural and economic requirements; MoHE coordinates school and university education as well as the emerging private higher education institutions. Towards this purpose; the Council for Higher Education (CHE) was formed in 1998. The central figure in the landscape of Omani higher education is Sultan Qaboos University (SQU), which is the national university started in 1986. Before the start of SQU, Omani students were sent to Western and Arabic universities on government scholarships. Today, the majority of Omani students attend the 27 higher education institutions existing in Oman (MoHE, n.d.).

2.3.1. Oman’s national university: Sultan Qaboos University (SQU)

As the national university of Oman, SQU is the pride of the nation. It is the brainchild of His Majesty Sultan Qaboos Bin Said. Since its start in 1986, it has grown into a well-recognised institution of the Middle East, earning the 5th place in the GCC (Gulf Cooperation Council) rankings (SQU homepage, 2014). As the first university of Oman, it has been respectful of the country’s sociocultural traditions and values so that students and teachers from different regions, cities, and remote villages of Oman are facilitated and encouraged to

attend. For instance, in keeping up with the Islamic tradition of maintaining male-female separation within the social realm; university buildings are connected through lower (male) and upper (female) walkways, assigning separate entrances to buildings and separate seating areas in classrooms. Currently, SQU consists of 9 colleges and departments (Arts & Social Sciences; Commerce, Economics & Political Sciences; Sciences; Education; Agriculture & Marine Sciences; Engineering; Medicine & Health Sciences; Nursing; and Law) and 9 support centres, assisting the achievement of goals of the university (SQU homepage, 2014). It is also the largest higher educational institution in Oman with student enrolment numbers ranging between 15,000-19,900 approximately (SQU homepage, 2016). Its Mission statement declares how it seeks excellence in,

...teaching and learning, research and innovation, and community service by promoting the principles of scientific analysis and creative thinking in a collegial and stimulating environment and to participate in the production, development and dissemination of knowledge and interact with national and international communities. (SQU homepage, 2014).

Furthermore, SQU centres the development of the core values of "...Professionalism, Excellence, Commitment, Integrity, Loyalty, Collaboration, and Equity (Vision, Mission, & Objectives, SQU, 2014) which are also the fundamental values that a university comprises (Barnett, 1990). These core principles influence the goals of the university, contributing to developing the wealth of the nation, i.e. its youth, complying with the national policies.

2.3.2. Language Centre at SQU

The Language Centre (LC) is a support centre of SQU. Its vision includes 'providing a flexible environment for students to study and be creative, fulfilling their potential' and the mission is to 'offer quality teaching services to prepare learners for the challenging academic and professional engagements of learners' (The Vision & Mission of LC, 2014). The LC consists of a large expatriate EFL teacher population (Annual Statistics Book, 2012-2013, p.306) and between 2012-2013; there were approximately 222 EFL teachers with 171 expatriate teachers and 51 Omani teachers. Structurally, the LC consists of the 6 units of:

- Assessment Unit (AU);
- Curriculum Unit (CU);
- Professional Development Unit (PDDU);
- Faculty Academic Support Unit (FASU);

- Student Support Unit (SSU);
- Community Support Unit (CSU) (www.squ.edu.om/lc 2014).

For the purpose of equipping students with appropriate knowledge and EFL skills to qualify them for their academic and professional lives; the LC offers foundation (FPEL) and Credit English Language Programs (CELP).

2.3.2.1. The Foundation Program (FPEL)

Omani students complete their basic school education in the medium of Arabic (L1) in Omani public schools. Hence, it is compulsory for higher education institutes of Oman to offer foundation programs (MoHE, n.d.). The foundation programs need to include the three major components of English (EFL), Mathematics, and Information Technology in the medium of English; preparing students for their higher studies and professional lives.

The foundation English language courses that the LC offers are structured in a way that allows proficient L2 learners to have the opportunity to skip the FPEL programs and proceed to credit courses (domain-specific education) with the provision of scoring IELTS² bands 4.5 or above (FPEL Curriculum Document, 2014). The foundation program also includes portfolio management based on Oman academic accreditation authority's (OAAA) recommendations (FPEL Curriculum Document 2014, p.5).

2.3.2.2. Credit English Language Programs (CELP)

The CELP courses exist on the rationale that students need further support in their content education at the university, as they are required to read, understand, and work with subject-specific reading texts. CELP course syllabi are structured according to the respective college requirements. Therefore, CELP courses fall under the category of English for specific/academic purposes (ESP/EAP). The CELP document explains that credit courses are designed in ways that enable teachers to “engage” their learners, so that they can ‘make sense of their real-world experiences as educational goals, simultaneously focusing on developing the required academic skills’ (CELP, 2014, pp.6-7). However, since teacher and teaching evaluations are not a regular occurrence; the achievement of the aforesaid course objectives depend on teacher discretion.

² International English Language Testing System

2.4. Important academic documents of the LC

While this study does not focus on document analysis as a research method; it utilises the opportunity that the important academic related documents of SQU and the LC present. Therefore, the study is able to substantiate participant claims by referring to these documents. Moreover, since these documents are freely available on the SQU website in English language; they are a rich source of information for this research. The four documents include,

- i. the vision and mission statements of SQU (electronic copies: SQU homepage);
- ii. the vision and mission statements of LC (electronic copies: SQU, LC homepage);
- iii. the FPEL curriculum document (electronic copies: LC homepage); and
- iv. the CELP curriculum document (electronic copies: LC homepage).

While there is a wide scope for choosing documents from SQU and LC; the aforementioned documents have been chosen for the relevancy of information that they provide and ease of access. They inform of the institutional and course objectives, leading to specified outcomes of learning. In addition, my own familiarity with them as an EFL teacher who works at the LC in SQU is another reason for choosing them.

All four documents originate from the context of SQU and LC, and their intended audience includes the internal and external stakeholders of teachers, students, parents, potential employees, and relevant higher authorities along with the quality assurance committees. However, since this study intends to examine the course objectives and goals critically; as a precautionary measure, permission to do so was requested from the Language Centre Research Committee (LCRC). Permission was granted in the form of ‘no objection’, since these documents are already in the public domain. Nevertheless, being mindful about the socio-cultural climate of the context; these documents are looked at in a context-sensitive manner, avoiding potential constraints. In sum, these documents promise the triangulation of evidence in relation to the (a) vision & mission of the LC and SQU and (b) FPEL & CELP course objectives and learning outcomes.

2.5. EFL teaching and contextual issues

English language teaching was introduced in Oman for achieving two main purposes. Firstly, English is considered “...a resource for national development” and secondly, Oman has recognised English as the means for wider communication within the international community” (Al Jadidi, 2009, p.22). These goals ground the National English Language Policy/Plan (NELP) launched in 1987 (MoE, 1995) and the 8 five-year reforms to date,

contributing to enhance the development of English language teaching in Oman quantitatively and qualitatively.

In Oman, English is taught as a foreign language (EFL) in addition to Omanis' first language of Arabic. With this purpose in mind; Oman employs a skilled and qualified expatriate workforce to meet the educational and training needs at school and university levels. Omani students start EFL education as a subject from grade one in all state schools. Their medium of instruction is changed from Arabic to English only at the university level on par with the national goal of using EFL as a tool of national development and wider global communication. Focusing on the goal of national development; the policy of Omanisation which was introduced under the grand scheme of "2020 Vision" is expected to intensify the development of a skilled national workforce Oman. In line with the policy, MoE and MoHE have set out accelerated general and English education programs in both government and private educational institutions (The National Report of Sultanate of Oman, 2008, p.20).

However, though Oman has received praise for its rapid developmental efforts; Omani education system has also received criticism (The National Report of Sultanate of Oman, 2008, p.18; Al Issa, 2006). For instance, Al Issa (2006) refers to the system of education as 'rigid' since the centrality of textbooks and teachers in the Omani culture tends to refrain students from critiquing the content of the textbooks or teacher views; leading to the depositing of knowledge as Freire (1971/1996) once wrote (Al Issa, 2006).

In general, the novice Omani EFL teachers are expected to follow communicative language teaching (CLT) approaches in their classroom teaching centring the input of the teacher education courses. However, as Al-Mahrooqi (2012) writes, "...most new recruits are not well-trained to incorporate communication skills to their classroom teaching and need professional development help" (p.129). The new recruits that Al-Mahrooqi (2012) refers to include the Omani graduates of the SQU teacher education programme. On one hand, Al-Mahrooqi's comment implies the need for practicum within teacher education programmes and professional development courses as on-the-job training because novice teachers develop their knowledge of the practice as a result of reflective teaching, employing meta-cognition (thinking about one's own thinking/actions while practising). On the other hand, it highlights

the need for developing critical thinking in Omani learners (who are also trainee-teachers in this case) so that they will be disposed to think critically and use key skills such as reflective and meta-cognitive thinking to close the gaps in their learning and the practice of teaching.

A recent study on the challenges of Omani education, by Emenyeonu (2012), highlights that in Omani EFL students' and often, their teachers' view, the change from L1 to L2 at university level hinders students' achievements to a large extent in higher education. The study further reveals that as students highlight, poor L2 vocabulary causes poor attitude towards EFL learning. Furthermore, the study also highlights that lack of exposure for EFL learners especially, in rural areas, as a genuine issue that affects the development of EFL. The authors also add that imported course books can be challenging for the Omani learners largely due to vocabulary issues (also Flowerdew & Miller, 2008).

In general, issues in EFL education show that context-specific educational policy has a large responsibility towards reducing and resolving of these issues. For instance, the use of imported course books can be unavoidable as replacing them with locally produced teaching material is a gradual process. However, since contextual education policy decisions are formed in consideration with national economic achievements of the country (Issan, Nariman, & Gomaa, 2003); there is a need for educational institutions to share the responsibility of finding preventive measures to contain the issues that hinder the achievement of national educational goals.

2.6. Importance of critical thinking in education in the context of Oman

Current research demonstrates a multitude of reasons for developing critical thinking in learners (Tuzlukova et al., 2017; Johnston et al., 2011; Mulnix, 2010; Paul, 1990). Similarly, definitions of critical thinking (discussed on pp.38-39) informs how critical thinking is fostered gradually by developing the specific skills and capabilities (Paul, 1990). Since formal education has a higher potential for developing students' skills and capabilities (Miri, David & Uri, 2007); focusing on the development of critical thinking becomes an aspect of formal education. In light of that, developing critical thinking is also considered an outcome of education. For instance, according to a recent survey by The Association of American Colleges and Universities (AACU, 2013); employers (93%) prioritise the importance of demonstrating a candidate's capacity to "...think critically, communicate clearly, and solve

complex problems” rather than the specific (subject) major of undergraduate education (p.1). The same notion has been highlighted by many scholars from different parts of the world, including Tuzlukova et al. (2017), Thakur & Al-Mahrooqi (2015), Richardson (2003), and Kurfiss (1998). In their view, the complexities of modern life demand critical thinking from today’s citizens. They argue that the innovative 21st century jobs are complex and challenging and need employees who can think critically. Hence, the implication is that developing critical thinking in education is an obligation rather than an option. The discussion also exemplifies how critical thinking extends beyond the immediate educational context, leading to professional spheres based on the assumption of skills transfer.

Another important reason for fostering critical thinking in Omani students is to develop them into successful learners that achieve their goals of learning. Since education is the key tool to realising the economic goals of a country (Benesch, 2008); Oman focuses on the development of its economy and citizens ‘through education’ (Al Lamki, 2000). Towards this goal, the national policy of ‘Vision 2020’ was launched, outlining the socio-economic goals of the country for the next 25 years (World Finance Review, 2016; Al Lamki, 2000). The plan focuses on the key areas of,

- economic and financial stability;
- reshaping the role of government in the economy and broadening private sector participation;
- diversifying the economic base and source of national income;
- globalization of the Omani economy;
- upgrading the skills of the Omani workforce and developing human resources (World Finance Review, 2016, p.59).

Under the national development plan of ‘Vision 2020’; Oman launched the policy of Omanisation, in 1996. It was an effective strategy to achieve the primary goal of creating a skilled Omani labour force that can replace the large expatriate work force. The following figures show the dire need (to employ Omanis) that existed in 1998, with an 81.8% of expatriate population dominating the Omani employment market.

<i>Nationality</i>	<i>Percentage</i>
Omani	18.2%
Expatriate (non-Omani)	81.8%
Total	100.0

**Figure 2 Profile of total workforce in the Sultanate of Oman
in 1998 (Al Lamki, 2000)**

With intensive focus on the process of Omanisation; the Omani government established a High Committee for Vocational Training to oversee this process through a Three-Tier Strategic Framework. It included careful planning with, Tier One as government; Tier Two as employers; and Tier Three as employees of Omani nationals (Al Lamki, 2000). Recent figures demonstrate the success of Tier One, indicating how 81.8% of expatriate workforce in the government sector (1998) has been decreased to 39% in 2014 (Romano & Seeger, 2014, p.42). However, the private sector has shown much slower progress towards Omanisation, comparatively. Despite the government's huge efforts to promote Omani nationals within the private sector; even by 2010, expatriate workforce showed a "significant 92% of employment" as Romano & Seeger (2014, p.42) highlight. They also point out that,

Omanisation seems to become more difficult to implement in the most specialized and technical professions; the rate of Omanization in basic engineering, technical fields and specialized professions is extremely low, with rates of 13.1 percent in industrial jobs, 7 percent in basic engineering, 2.2 percent in technical fields, and 18.7 percent in specialized professions. (Romano & Seeger, 2014, p.50)

One of the main reasons for the existing differences of the employment rates is that the government sector is likely to absorb Omani nationals with a minimum of academic/professional qualifications. Contrarily, the private sector (mainly comprising foreign investors) focuses on employing qualified and experienced employees irrespective of nationality with the intention of maintaining global professional standards (Romano & Seeger, 2014). Another reason for the differences between the employment rates is the general misunderstanding of Omanisation by many individuals. For instance, Omani students often show a clear aversion to spending four years at the university, claiming that four years for mastering a skill/s is a waste of time (Al Belushi, 2004). The implication is that since Omanis are entitled for the jobs in Oman and a government job awaits them; it is better to start on the job. Hence, a general lack of understanding about

the concept of Omanisation may also contribute towards what Romano & Seeger (2014) highlight as an ‘unqualified workforce’ within the government sector.

The above discussion implies that though Oman’s aspirations, including the policy of training and employing an Omani workforce, are important and set for success eventually; the success rate has been slowed because of Omani students’ lack of academic achievement rates. The dearth of Omani employees in the private sector highlights the need to examine the gaps in education so that effective measures need to be sought to remedy them. This suggests the need to equip the Omani learners with critical thinking skills at university level, preparing them for the competitive and fast-changing global job market (Thakur & Al-Mahrooqi, 2015; AACU, 2013; Richmond, 2006).

Changing economies that include changing job markets, create new jobs and those new jobs require new ways of thinking and skills (Stuart & Dahm, 1999) that the future Omani employees require. Based on Ananiadou & Claro’s (2009) work, Geisinger (2016) organises the 21st century skills into the four categories of “...cognitive, intrapersonal, interpersonal, and technical” skills (p.246). Each of the categories comprises,

- cognitive skills that include (among others): non-routine problem solving, critical thinking, and systems thinking, i.e. financial and entrepreneurial skills;
- intrapersonal skills (involving a group of metacognitive skills) that include: self-management, time management, self-development, self-regulation, adaptability, and executive functioning;
- interpersonal skills consisting of: complex communication, social skills including collaboration, teamwork, cultural sensitivity, and dealing with diversity; and
- technical skills that primarily focus on: research and information fluency skills as well as entrepreneurial skills and financial literacy. (Geisinger, 2016, p.246).

The four categories of the 21st century skills show that the traditional teaching approaches may lack the potential to focus on developing these crucial skills because they (the skills of collaboration, teamwork, cultural sensitivity, and dealing with diversity) require learner-centred teaching approaches that value these concepts, fostering them within learning. Furthermore, though Geisinger (2016) has categorised critical thinking as a cognitive skill; the skills of non-routine problem solving, self-management, and self-regulation are also closely associated with critical thinking (Johnston et al., 2011; Ennis, 1996). The point is that a large portion of 21st century skills comprise critical thinking skills, indicating the importance developing critical thinking in Omani learners.

Prioritising the significance and relationship between the 21st century skills and language learning, the American Council on the Teaching of Foreign Languages (ACTFL, 2011) highlights that L2 teaching has the potential to focus on the development of the 21st century skills. Based on its recent research; ACTFL organises the 21st century skills into the eleven areas of “...communication, collaboration, critical thinking and problem solving, creativity and innovation, information literacy, media literacy, technology literacy, flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, and leadership and responsibility” (pp.6-20). Explaining how each category includes further sub-skills; ACTFL (2011) emphasises that L2 teaching affords the incorporation of these skills into curricula and syllabi as everyday teaching practices, effectively. The need to focus on developing the 21st century skills in education makes the need to fostering them in Omani learners transparent.

2.7. Summary of chapter two

Chapter two provided a brief description about the context of Oman, the landscape of higher education, and the immediate research context of the Language Centre at SQU. Chapter two also identified four important academic documents as a key source of data and tool of triangulation. These documents were selected for their scope for providing information related to contextual and institutional stances and ease of access. Moreover, chapter two presented a discussion about EFL teaching and issues in the context, highlighting the perspectives of context-specific research. Finally, concluding with a discussion on the importance of critical thinking in education; chapter two provided a view to critical thinking through the lenses of Omani context. Thus, the discussion indicates how Omani students benefit when they are equipped with critical thinking skills to increase their academic proficiency, and prepared for future employment, which enable the achievement of academic, professional, and socio-economic goals, contributing to the success of the national goals of education.

Chapter Three: Literature Review

3.1. Introduction to chapter three

Chapter three presents a review of the key ideas and issues related to the main themes of this research, which include critical thinking, EFL education, and learner-centred teaching practices that are informed by the constructivist principles of knowledge and learning. The discussions on these three main ideas provide knowledge about the characteristics of critical thinking, and constructivist teaching practices that can contribute to form effective EFL teaching practices, informing the EFL community in the context. This chapter also looks at the challenges to fostering critical thinking and the implementation of constructivist teaching approaches within the context of research. Therefore, the discussion on the challenges can contribute to finding effective ways to address these issues.

Chapter three starts by reviewing three existing definitions in order to identify the characteristics of critical thinking, differentiating the critical from the uncritical. This discussion is followed by a brief look at some of the reservations about fostering critical thinking within general (including EFL) education, since general education is a key focus of this research. This chapter identifies eight key components that promote critical thinking, contributing to the effective construction of meaningful learning activities that promote critical thinking. This discussion includes a section that examines the transferability of critical thinking skills and their assessment, which are central to developing the skills in general education.

Following the assumption that cultural meanings permeate every aspect of education in Oman; chapter three takes a closer look at some of the key contextual assumptions in relation to fostering critical thinking in EFL teaching in Oman. Next, the different kinds of knowledges that are central to general and EFL education are briefly addressed before discussing the teaching implications.

The latter half of this chapter reviews the three constructivist paradigms of Deweyan, Piagetian, and Vygotskian constructivism. These discussions seek paradigmatic explanations about the knowledges, learning, the relationship between language and thinking, and how constructivist principles prompt specific teaching practices that contribute to fostering critical

thinking. Under social constructivism, CHAT is looked at closely to find out the ways that its principles contribute to enrich the knowledge construction process.

Subsequently, chapter three reviews several important context-specific EFL research projects, which highlight some of the key teaching strategies that foster critical thinking, enhancing the understanding of the current contextual situation in relation to fostering critical thinking in EFL teaching. Chapter three concludes with a summary of the key ideas that are reviewed.

3.2. Definitions of critical thinking

Critical thinking is a complex concept to define. Similarly, choosing one definition from the existing definitions can also be challenging because critical thinking is associated with different spheres of knowledge, including philosophy, psychology, and education. However, this study examines three important definitions, arising from the domain of education for an in-depth understanding of critical thinking.

“Critical thinking is a rational response to questions that cannot be answered” in Kurfiss’ (1988, p.20) view. She adds that critical thinking is an investigation that explores a situation, phenomenon, question, or problem. Hence, an important characteristic that defines critical thinking is the ability to make informed decisions to act on as well as justify actions (Kurfiss, 1988). Secondly, as Johnston et al. (2011) highlight, Barnett’s (1997) idea of developing a “critical being” is a central aspect in developing critical thinking in individuals (pp.18-19). Barnett’s argument is that while students develop criticality to knowledge through academic focus at university; being critical to knowledge alone cannot equip students with the critical skills that professional and citizenship challenges demand. Therefore, one needs to become a “critical being” that is critical to “self, knowledge, and the world” (Barnett, 1997, p.103). Barnett emphasises that there are four levels of criticality that one needs to achieve in becoming a critical being. They are: (i) critical skills, (ii) reflexivity, (iii) refashioning of traditions, and the (iv) transformatory critique. The concept of critical being is yet to be incorporated into the global systems of education explicitly, though the traditional view values domain-specific criticality that develop implicitly in learners (Johnston et al., 2011). Thirdly, Ennis (1987) defines critical thinking as “...reasonable, reflective thinking that is focused on deciding what to believe or do” (p.11). He emphasizes the importance of dispositions of thinking, which contribute to develop the qualities of being open-minded,

sensitivity to others' feelings, and seeking knowledge as the ideal characteristics of a critical thinker.

This study centres Ennis' definition for its simplicity, clarity, and generalisability. In terms of generalizability; Ennis highlights that critical thinking can be developed in general education contrary to the view that 'critical thinking is exclusive to domain-specific education' (McPeck, 1990). Agreeing that 'thinking is always about something' (Vandenberg, 2009), Ennis clarifies how skills development in general education also always uses something (learning material) that enables thinking. A second important element emerging from Ennis' definition is that the cognitive skills of reasoning, reflection, and questioning are centred as modes of thinking, demonstrating the nature of thinking that is taking place. Ennis emphasises that developing critical thinking needs to be accompanied by the developing of the dispositions of critical thinking, making Ennis' definition an all-encompassing definition.

According to these definitions, the key characteristics of the concept of critical thinking include,

- higher thinking skills which makes critical thinking an 'intellectual affair' (Scriven & Paul, 1993);
- reflective thinking (Ennis, 1987), comprising meta-cognitive skills as 'thinking about thinking' (Halpern, 1983) making critical thinking an 'intellectually disciplined' way of thinking (Scriven & Paul, 1993);
- rational responses to the unknown (Kurfiss, 1998, p.5) taking the individual from the unknown to the known;
- developing of a range of skills such as argumentative skills, cognitive processing skills, and logical thinking (Kurfiss, 1988, p.5) that contribute to intellectual development.

In light of these characteristics, critical thinking can be defined as an intellectually sustained thinking skill, comprising reflective, rational thinking to reach justified conclusions that result from examining phenomena or situations critically. Critical thinking comprises higher thinking skills such as rational, reflective, and analytical skills that are intellect bound (Lantolf & Thorne, 2007), and since performing these skills and one's intellect cannot be separated; the implication is that the development of these skills contributes to the development of critical thinking and thereby, the intellect. The ability to justify one's conclusions is a mark of critical thinkers, compared to the average thinker who may or may

not be able to justify his/her conclusions (Kurfiss, 1988), indicating that critical thinkers connect their logic (of arguing) through superior thinking abilities.

3.2.1. Characteristics of critical thinkers

Definitions of critical thinking indicate the important qualities of critical thinkers. Therefore, they can also differentiate between what critical thinking is and what it is not. The table below briefly identifies the characteristics of critical thinkers, distinguishing them from the uncritical thinkers.

characteristic arising from the definitions	translation- as critical thinkers	the average/uncritical thinkers
Rational response to the unknown (Kurfiss, 1998, p.5).	Strive to make informed decisions by analysing evidence of a situation or phenomena.	Decisions may not be rational because evaluating the evidence may not be a character. Therefore, they may remain ignorant because they may give up seeking solutions/further investigating, upon complications. They may lack the disposition to do so.
As the concept of ‘critical being’ highlights; criticality to “self, knowledge, and the world” involves critical examination of the social and real-life elements (Barnett, 1997).	Being critical to one’s socio-economic and political aspects is as critical as one can be (Freire, 1971).	Viewing the problem itself without taking into consideration the socio-economic and political views, the average thinkers may get a one-sided solution.
Critical thinking includes a range of higher thinking skills (Ennis, 1983; Mulnix, 2010), making critical thinking an intellectual skill (Scriven & Paul, 1996).	Intellectually stimulated to employ different kinds of thinking skills to decide what to believe or do.	May involve informal logic in general, however, may lack the ability to use a range of higher thinking skills.
Includes reflective, meta-cognitive skills.	Think about thinking, reflecting on self and the content; indicating the preparedness to correct the ‘self and thinking’.	Tend to ignore the need to evaluate and be self-critical about the self and the content.
Habits of thinking are important to prompt critical thinking.	As habits include skills, abilities, and sensitivities, qualities such as fairness, open-	Without the important habits of thinking the average person may make rash decisions. Lack of habits such as open-

	<p>mindedness, and sensitivity to the others' capacities shape the critical aspect to be humane. Consequently, critical thinkers are prepared to listen to the others (fairness) and suspend releasing judgement at first impression (sensitivity) and prepared to acknowledge mistakes and correct themselves (open-minded, reflective, and rational).</p>	<p>mindedness and fairness; one may become a harmful person to the society/ academic environment, when one does not acknowledge one's faults or correct them.</p>
--	---	---

3.2.2. Dispositions of critical thinking:

A disposition is the internally motivated tendency to think critically upon the need to think or act critically. Therefore, it is also a tendency or a habit (van Gelder, 2011). Developing critical thinking needs to be accompanied by the development of dispositions because this tendency to think develops into habits, prompting thinking (Ennis 1996; Halpern, 1983). Dispositions comprise the three aspects of inclinations, sensitivities, and abilities (Perkins, Jay & Tishman, 1993). Inclinations are close to habits, sensitivities include being sensitive to the content, context, and individuals, while abilities represent the skills of thinking.

Ennis (1996) identifies 15 dispositions that critical thinkers need to develop. He prioritises some of these dispositions as they help to make critical thinkers “humane” without which critical thinkers can be even “harmful” (Ennis, 1996, p.167) to self and the others. Ennis categorises these 15 dispositions under three major categories, assigning sub-dispositions:

1. critical thinkers “care that their beliefs be true, and that their decisions are justified; i.e. care to get it right to the best of their abilities (seeking alternatives, seeking justifiable stances, be well-informed, considering the others' views);
2. critical thinkers represent a position honestly and clearly (be clear and precise about one's own view, maintain focus on the point, seek rationales, consider the total situation, reflective about one's own beliefs);

3. the third major disposition is that critical thinkers care about the dignity and worth of every person (listening to the others, considering their views, avoiding intimidating, and being concerned about others' welfare) (Ennis, 1996, p.171).

These dispositions can generate from within oneself as well as be 'correlative' inclinations, habits, or sensitivities. Ennis discusses how caring about the dignity and worth of every person is more of a sensitivity than a skill or an ability.

Moreover, van Gelder (2013) identifies seven habits of critical thinkers:

- (1) judging judiciously,
- (2) questioning the questionable,
- (3) chasing challenges,
- (4) ascertaining alternatives,
- (5) making use of strategies,
- (6) taking various view points, and
- (7) trying to be objective.

Both, Ennis and van Gelder emphasise that developing the habits of thinking is a central part of developing critical thinking. Habits such as judging wisely, taking time to respond to a question, use of diverse points of views and strategies to arrive at a solution/decision, and sustaining intellectual curiosity stand out. The notion is supported by Colucciello (1999) who studied 'the relationship between critical thinking, dispositions, and learning modes', revealing the interconnectedness of dispositions and critical thinking. Based on her findings, she concludes that students' "...learning preference may be related to their critical thinking dispositions" (p.296) because different students tend to learn different subjects based on their sensitivities and tendencies to learn. Secondly, Colucciello (1999) recommends that it is important to mentor the habit of reflective thinking, keeping regular checks as reinforcement. Thirdly, in her view, incorporating group work and peer-reviewing into learning situations is a worthy effort that promotes critical thinking because being admired by peers is an important aspect for critical thinkers who "...take pride" in their abilities. In sum, this brief discussion indicates that developing the habits of critical thinking is central to developing critical thinking in students as learning is influenced by habits of thinking.

3.2.3. Critiques and issues of critical thinking

Different definitions of critical thinking can highlight different characteristics and properties of critical thinking, encouraging specific ways of thinking. One of the sources for

diversity of definitions is different schools of thought. The traditional view suggests that critical thinking is domain-specific and emerges naturally from in-depth subject matter knowledge (McPeck, 1990; Vandenberg, 2009). The argument is that the development of the depth of knowledge and the specific teaching methods resembled in domain-specific learning contribute to develop critical thinking. While this study agrees that domain-specific education promotes critical thinking, it contends that general education, including EFL education, provides the necessary affordances for fostering critical thinking (Johnston et al., 2011; Mulnix, 2010; Ennis, 1996).

Another critique about critical thinking is that the domain of education focuses on a “...one dimensional view” of critical thinking, prioritising; for instance, rational thinking as scientific thought (Langer, 1992, pp.4-5). Langer’s point is that individuals construct meanings in diverse ways, integrating their experiences, creative thinking, aesthetic senses, and language as in literary appreciation. While a closer look at some of the current definitions of critical thinking shows that the term rational thinking is included; the concept of critical thinking would have lost its value in education a long time ago if, critical thinking means logical reasoning alone (Bailin et al., 1999b). The implication is that certain properties of critical thinking are prioritised within different domains, but critical thinking is a skill that encompasses a diverse range of thinking skills (Mulnix, 2010). This highlights the importance of choosing the most appropriate definition of critical thinking.

Similarly, Thayer-Bacon’s (1993) argument is that conceptually, critical thinking represents masculinists’ ways of knowing. Thayer-Bacon’s point is that the conventions of critical thinking involve the elements of logic, reasoning, and syllogism that are more of masculinists’ ways of thinking and they alienate “experiences, emotions, and feelings” that are defined as women’s ways of knowing. This notion has been explored by Khine & Hayes (2010) who studied the perceptions of a group of female students studying for a Bachelor of Education degree in a university in the United Arab Emirates (the UAE) about how they gained knowledge of what they know. Khine & Hayes (2010) conclude that these students’ assumptions seem to ground their educational experiences when they identified the nature of knowledge and limits, indicating why a particular aspect (of knowledge) was not accessible to them. While it is challenging to access the epistemological assumptions of the others, students’ assumptions reveal that their ways of knowing are influenced by their background

knowledge of culture, society, and life experiences. Khine & Hayes' (2010) study shows a particular relevance to my research, since the UAE is a neighbouring Middle Eastern country of Oman, sharing the same Arab-Islamic cultural and social values. Their study demonstrates how the gender roles and power relations of social hierarchy (Hofstead, 2001) affect students' knowledge and knowledge construction in a formal academic environment. Khine & Hayes (2010, p.114) highlight that in general, individuals draw from different sources of knowledge as different ways of knowing and not exclusively by gender. However, the researchers do not exclude the fact that the research participants' ways of knowing may have been influenced by college studies.

Similarly, Markman et al. (2001) claim that people depend on "memory" to reach conclusions when they argue in real life rather than principles of "logic" (cited in Johnston et al., 2011, p.24). One discrete implication is that there is a lack of need to focus on developing critical thinking in the average learner. However, as the globalised world today requires the average person to earn a living by becoming an employee (or an employer) and critical thinking has been recognised as a 21st century skill that is a relevant, necessary, and dependable skill for the global employee (Tuzlukova, Al Busaidi, & Burns, 2016; Thakur & Al-Mahrooqi &, 2015; Lunenburg, 2011); the average learner benefits vastly by developing critical thinking. Although not as a support to Markman et al., Vygotsky (1962) mentions how the average person uses a minimum of logic. Vygotsky discusses how a person might tie a knot in a handkerchief as a reminder for a certain important point. His example evinces the association between mind and memory, exemplifying how people tend to rely on memory and even use strategies to jolt memory by association. This miniscule example can inspire the theoretical assumption that development of the habits of thinking contributes to fostering critical thinking.

There is also a practice of offering special courses to teach critical thinking in the field of education which has provoked negative criticism. In McPeck's (1990, cited in Johnston et al., 2011, p.24) view, those courses make learners want to be logical by learning "...a few basic rules of argument". However, as Johnston et al. further discuss, the development of critical thinking through such courses can be challenging because, unlike the experts' knowledge; students' knowledge is still fragmented at the beginner stages at university. Therefore,

McPeck's point that it is ill practice to attempt short-cuts by designing critical thinking courses seems to gain merit.

In short, the issues relating to teaching of critical thinking identifies different views on the fostering of critical thinking in learners. On one hand, critical thinking cannot be reduced to a one-dimensional view, representing a rational, masculinists' way of knowing because the fluidity of borders of these concepts has begun to gradually shift, reverse, and merge for the contemporary learner. The idea of relying on memory as a global employee in the competitive job market is challenging especially, as critical thinking has been recognized as a 21st century-skill central to performing well in jobs as employees. The two different schools of thought promote different ways of developing critical thinking, but they also complement each other in the continuum because the assumption is that the processes of thinking learned in general education are used in content education through transfer of learning/skills.

3.2.4. Key components of critical thinking

Critical thinking includes a range of skills but not "...all higher order thinking is critical thinking" according to Black (2008, p.11). Her point is that higher thinking skills such as analytical, logical, and meta-cognitive skills are essential components of critical thinking that steer thinking towards critical thinking but they do not equal critical thinking. Mulnix (2010) who supports the idea discusses the importance of identifying the underlying skills of critical thinking in order to focus on enhancing those skills. Hence, some of the higher order thinking skills and components that are central to developing critical thinking are briefly pointed out below.

3.2.4.1. Problem-solving skills

An important element of critical thinking is problem-solving skills. Problem solving is a major skill that involves the skill of reasoning and many other underlying skills. However, the major difference between problem-solving and critical thinking is that "...the solution to a problem (generally, spatial and/or numerical) replaces the argument", which often "ends" thinking about the particular problem (Black, 2011, p.11). A second reason why problem-solving and critical thinking are different is because "...one may solve a problem in a critical or uncritical manner" (Bailin et al., 1999b, p.288); contrary to the characteristics of critical thinkers that include staying focused on the problem, viewing it from different angles and being able to justify the solutions and

decisions, as Ennis (1996) highlights. The indication is that problem-solving is an important component of critical thinking.

3.2.4.2. Creative thinking skills

Furthermore, creative thinking skills are an important element of critical thinking. Creative thinking is defined as "...a type of effort toward a particular event and the problem based on the capacity of the individuals" (Birgili, 2015, p.72). Creative thinkers use imagination, their intelligence, and ideas in relevant situations, generating new and different solutions to relevant problems and situations. Creative thinking is "...correlated to critical thinking and problem solving" (Birgili, 2015, p.72) but creative thinking does not equal critical thinking because, as Black (2008) writes, it "acts as the means to an end" although it is useful to be imaginative and creative (pp.11-12).

3.2.4.3. Meta-cognitive skills

Meta-cognition is an important higher order thinking skill. It has been defined as 'thinking about one's own thinking' (Halpern, 1983). It requires awareness of self and many higher order skills for its activation. Just as critical thinking; meta-cognition develops when students engage in the practice of thinking. Johnson et al. (2010) highlight two types of meta-cognition. One type relates to awareness about "planning, monitoring, evaluating, and revising one's thinking processes and products" and the other type includes 'strategic knowledge' that relates to 'strategies/skills that one possesses and knowledge of when, why, and how' (p.1499).

The importance of developing meta-cognitive skills is emphasised by Everson & Tobias (1998, cited in Johnson et al., 2010, p.1499) who discuss how a group of students who evaluated their own levels of understanding about one subject area could better identify the weaknesses in particular areas of math. These students had also demonstrated how they resolved their issues/challenges, achieving success in those problematic areas. This indicates "...how meta-cognitive skills help to support lower-level learning" (Johnson et al., 2010, p.1499). Moreover, the authors' analysis about students' 'reading comprehension, critical thinking, and meta-cognitive skills in higher education settings' reveal that while students did not show greater development in meta-cognitive skills, they demonstrated increased levels of critical thinking. Johnson et al.

affirm their stance that the development of the key skills of critical thinking, including meta-cognitive skills contributes to develop critical thinking.

3.2.4.4. Background knowledge

Critical thinking and background knowledge are interrelated (Bailin et al., 1999a) leading to interdependency. As experts point out, in the field of education, it is background knowledge that contributes to develop critical thinking in content education (McPeck, 1996; Vandenberg, 2009). Affirming this view, Bailin et al. (1999a) discuss how "...skilled performance at thinking tasks cannot be separated from knowledge" (p.271). They highlight how interpreting a *graph* is different from interpreting a *play*". For, interpreting a graph requires understanding and decoding of geometric entities that are very different from being sensitive to the characters that unfold the plot in a play. They make the point that background knowledge, involving generic and discrete skills, values, beliefs, dispositions, and memories, provoke and enable thinking critically. This understanding may support the traditional view more (that critical thinking develops through content education) because the content/context that general education centres (when teaching/developing skills) can be more general and less in-depth, enabling background knowledge through schemata.

3.2.4.5. Syllogism as informal logic

Syllogism is defined as "...a process of logic in which two general statements lead to a more particular statement" (Cambridge dictionary, n.d.). Syllogism relates to rational and logical thinking involving critical thinking. Halpern (1989) emphasises that people use syllogism in different ways and levels in their everyday matters and that academic affairs include syllogism as "...in natural contexts, premises and arguments" though those arguments may not be labelled as syllogism (p.141). For example, logic is embedded in political arguments, media, and academic contexts in so many ways. Halpern especially mentions that the function of "testing" in the academic world will lose its strength without such "logic" (1989, p.141). These examples substantiate how syllogism is implicitly embedded in real life arguments. They affirm that logical and rational thinking are key components of critical thinking.

3.2.4.6. Orienting learners to notice

One's ability to "notice" things is a central element that prompts critical thinking (Johnston et al., 2011; Bailin et al., 1999a). Noticing enables individuals to enter the premise of the problem. Critical thinking can be prompted by dispositions, but in order to think critically, one needs to notice the need (how or to what) to be critical to a particular phenomenon/situation. In fostering critical thinking within the field of education, teachers can enable their students to notice by providing opportunities; as in enabling "...a condition to notice" (Bailin et al. 1999a, p.275).

Students need to be 'oriented' to notice by using specific teaching strategies. Teachers can use explicit strategies such as instructing students 'to pay attention/focus on' to orient students to notice. On the other hand, teachers can use implicit strategies such as enabling students to notice by providing examples as well as by asking questions. For instance, in an EFL reading class, a teacher can orient students to notice language aspects, genres of writing and reading, and content at discourse level, enabling critical thinking. Sharing this view, Black (2008) highlights that as a form of thinking; critical thinking "...can be acquired and exercised through incidental exposure in one's general educational experience" (p.8). In light of that, the following key aspects need to be focused on, when orienting learners to notice, promoting critical thinking:

- the element/s of critical thinking (in this case to noticing);
- appropriate teaching strategies and learning activities;
- providing sufficient exposure;
- providing opportunities to notice.

3.2.4.7. Language proficiency (L2)

The key source of individual development is social interaction and central to interaction is language as language and thinking are interrelated and interdependent (Vygotsky, 1978). Secondly, while language is the key resource of development of individuals; the knowledge "...of language and how language is used" are key elements that prompt the use of language in ways that reflect critical thinking (Johnston et al., 2011, p.28). As students have opportunities to gain the 'knowledge of the language and how language is used' through L1/L2 teaching; developing the two aspects in EFL teaching can contribute to develop critical thinking. These knowledge categories are

central to thinking; as sociocultural/contextual and individual meanings, values, and beliefs are embedded in language, i.e. diluted in word meanings (Fairclough, 2001). Hence, language (L1 and/L2) is the most essential tool in developing critical thinking as it is the medium of interaction and learning.

Lack of L2 proficiency affects learning and critical thinking at many levels. Highlighting the centrality of working memory for language comprehension and critical thinking, Manolo, Watanabe, & Sheppard (2013) discuss how low proficient L2 learners overload their working memory capacities by focusing on the technicalities of language. Pointing out that university students are supposed to have mastered the basic language skills, such as spellings and grammar in schools for involuntary retrieval, saving their cognitive capacities for higher cognitive functions; Manolo et al. (2013) highlight how “cognitive cost” can be responsible for EFL learners’ poor thinking skills and lack of critical thinking (pp.2968-2970).

Among the many language issues, vocabulary is another important aspect of developing L2 proficiency. Lack of vocabulary impacts language skills seriously as (Floyd, 2011) discuss. It can hinder comprehension in both reading and writing, adding to the ‘task-time’ that EFL learners need. Consequently, as Chalmers & Volet (1997) point out, students, and especially Asian students, can demonstrate passive and silent behaviour. In their view, this ‘reticence’ can also be a habit from the Asian cultural backgrounds, preventing active participation in learning. However, Asian students’ silence, as in the absence of speech, has “...more meaning” rather than mere absence of linguistic utterances as Saville-Troike (1985) emphasises (cited in Mesthrie, Swann, Deumert, & Leap, 2000, p.185). Silence in Asian students’ culture is a required presence because it represents respect for power relations, obedience, politeness, and non-contradictory behaviour. Uncovering these constraints can contribute to encouraging social interaction among EFL students, developing their thinking.

3.2.4.8. Motivation

Motivation is the “...power that guides an individual towards particular objectives and ensures that he/she acts in line with these objectives” (Çimen, 2016, p.25). Motivation, therefore, includes the power to provoke, guide, and compel individuals

towards achieving the academic objectives inordinately, indicating its centrality in prompting thinking in individuals.

Motivation is a key aspect in L2 learning because the cultural notions attached to the L2 can increase or decrease one's motivation to learn the specific language. Dörnyei & Csizér (1998) who evaluated the motivational strategies used by L2 teachers and the frequency of those strategy use, have created a list of motivational strategies that they name as "The Ten Commandments for Motivating Language Learners" (p.215). Relating to the aspects of 'classroom environment, teacher qualities, and motivation'; the authors draw attention to the significance of motivating L2 learners.

A study on a group of Saudi Arabian EFL teachers (Al Hashmi, 2000) reveals that teachers are intrinsically motivated when they feel that they are responsible for the job that they are assigned, including every aspect relating to the job. Extrinsic motivation, on the other hand, can be influenced by external aspects that relate to performing one's job. Al Hashmi's (2000) study on the Omani school teachers shows that positive working conditions, positive attitudes of students, and cooperation among teachers were considered central by L2 teachers in increasing motivation. Al Hashmi adds that the less experienced L2 teachers ranked higher in motivation. The main demotivating factors according to the findings of the study, includes the demanding nature of the profession of teaching, lack of competency and knowledge, contextual restrictions such as assessment procedures and education policies, leading to lack of teacher autonomy (regarding content and methods), as well as lack of academic/professional development opportunities etc.

Moreover, in Schiefele et al.'s (2013) view, teacher interests and their goals are interconnected, contributing to increase motivation. The researchers highlight that teachers' interest in the (a) subject matter they teach, (b) methods of teaching, and (c) educational aspect of the teaching profession reflect on teachers' goals. Based on Butler's (2007) goal-oriented theory, Schiefele et al. (2013) identify four categories of teachers as:

- a. 'mastery-oriented' teachers possessing the goal of improving their professional competence, continuing to evaluate their competence according to the task demands;
- b. 'ability-oriented' teachers who are trying to outperform other teachers demonstrating their higher skills and abilities;
- c. 'ability-avoidance' goal-oriented teachers, indicating how teachers prefer to avoid showing their not-so-skilled abilities to other teachers; and

- d. 'work-avoidant' goal-oriented teachers who are constantly seeking ways to reduce their work load and effort.

These categories indicate that teacher goals are highly influenced by their interests, affecting the motivational levels of their students, classroom environment, students' progress, time management, and the cognitive stimulation (in task completion, leading to critical thinking).

3.3. What kind of a skill is critical thinking?

Identifying the kind of skill that critical thinking is can contribute to developing it effectively. As Smith (2002) explains, a skill is the ability to do something efficiently so that the required task can be performed efficiently. This shows that training (using effective methods) and experience can enhance skills, transcending the average human abilities/capacities. Within the categories of skills, general skills (as abilities) can differ from thinking skills.

In Smith's (2002) view, thinking skills are "...exercised by choice" and therefore, they involve "high-level, consciously controlled, mental activities", such as rational and analytical thinking (p.662). Thinking skills ground and draw from diverse sources of knowledges such as declarative knowledge (knowledge that), procedural knowledge (knowledge how), and heuristic knowledge, including strategies or methods (Johnston et al., 2011; Bailin et al., 1996a). Therefore, thinking skills also share the characteristics of general trainable skills (drawing from different sources of knowledge), and can be taught/trained explicitly and implicitly (Smith, 2002, p.662). The thinking aspect of thinking skills, on the other hand, shows that it involves exercising one's own judgement, encompassing different levels of sensitivities (Ennis, 1996b), making thinking an individual affair (Smith, 2002; Ennis, 1996b; Bailin et al., 1996b). This differentiates thinking skills from the general skills, identifying the individual aspect in thinking skills.

In light of that, contextualising a problem (task) enables diverse thinking skills, activating the exercising of individual judgement, noticing, critical senses at different levels, and critical thinking. Therefore, contextualising a specific problem can enhance one's performance in solving problems, encouraging the use of (a) subject/domain-specific strategies and techniques and (b) general transferable skills that activate during problem-solving. However, this study maintains that contextualizing is not exclusively domain-specific. For instance, a university level EFL reading class that may use an extract from a Shakespearian writing or a

newspaper article about the economy of Oman, will provide learning tasks that enable different ways of approaching the problem, using different skills and strategies. What both situations have in common are,

- exercising rational, analytical, and reflective thinking;
- seeking alternative strategies; and
- enabling students to simultaneously engage in meta-cognitive activities that enhance awareness of ‘how’ (to solve the problem), among the vast array of skills involved.

Hence, ‘how’ to think (controlling the mental skills expertly) can be guided explicitly, using specific strategies and techniques. This shows that learning tasks can be designed in the field of education to enhance critical thinking skills, grounding the precept that good thinking encompasses much more than the skills of reasoning and argumentation (Mehta & Al-Mahrouqi, 2014; Johnston et al., 2011; Smith, 2002; Ennis, 1996a; Bailin et al., 1996b),

3.4. Transferability of critical thinking skills

Developing critical thinking in general education raises the issue of the transferability of critical thinking skills. One way of examining this issue is to consider the aspects that are transferable in skills. Critical thinking skills comprise higher thinking skills as well as a vast range of general transferable skills (Smith, 2002). Hence, the implication is that teaching for the transfer of those skills can be an effective strategy, enabling the transfer of critical thinking skills. Transferring of skills/learning is seen as ‘near’ or ‘far’ transferring (Jackson, 2016; Johnston et al., 2011; Barnard & Jacobs, 2007). Near transfer occurs when the context in which the skills and knowledge were acquired is closely represented, in the context that the skills are applied. Far transfer, on the other hand, involves the ability and think and apply what is learned in one situation to another because the acquired context differs from the context in which they are applied in. This means new problems may arise that need resolving. For instance, as Jackson (2016) discusses, when university graduates apply their knowledge and skills in the workplaces as employees; far transferring of knowledge and skills occur.

Transfer of learning is significantly influenced by the four learner characteristics of: (a) one’s personality dispositions such as self-confidence in applying the abilities and skills in new situations, (b) motivation to learn as well as transfer, (c) intelligence and ability, and (d) related work experience, according to Lim & Johnson’s (2002) ‘transfer model’ (cited in Jackson, 2016, p.203). These characteristics highlight that focusing on developing the dispositions is one of the effective ways to promote far transferring. Similarly, elements of

these characteristics can be incorporated into EFL teaching. For example, teachers can enable the application of cognitive skills into new situations by providing problem-solving situations frequently in learning environments. Affirming, Barnard & Jacobs (2007) highlight that teachers have the capacity to help students to ‘reconceptualise their knowledge’ in wider sociocultural contexts, enabling transfer of learning and skills; and in doing so, they enable students to activate these important dispositions implicitly propelling far transfer.

3.5. Assessment of critical thinking skills

In Ennis’ (1993) view, there is a lack of focus on the aspect of “assessment” of critical thinking in many educational contexts (p.179). In his opinion, the lack of clarity about critical thinking leads to a lack of understanding of the properties of critical thinking, in order to assess them. Hence, the two important aspects that contribute to assessing critical thinking comprise (a) identifying a suitable definition and (b) the purpose of testing, since different contexts tend to define critical thinking according to context-specific values, validating different purposes for assessing them (Ennis, 1993, p.180). For instance, Black (2008) emphasises that the definition of critical thinking of ‘Cambridge Assessment’ plan has been created to evaluate specific skills under different knowledge categories. Black further explains how these tests can be made use of in different contexts, depending on the ‘appropriacy’ and ‘compatibility’ within contextual beliefs (p.7), exemplifying the considerations in designing assessment plans of critical thinking.

3.5.1. Critical thinking tests

Based on the stance that “... any initiative to evaluate critical thinking improves critical thinking performance”, Stein, Haynes, & Unterstein (2003) offer an evaluation of some of the currently available critical thinking tests. After evaluating the test types, their strengths, and weaknesses; the researchers indicate that the most recognized critical thinking tests have had negative reviews by users and their teachers. The researchers’ understanding is that concentrating on evaluating a single type of skill is the main weakness of many of the current critical thinking tests (pp.1-2).

However, in Ennis’ (1993) view, critical thinking tests that assess more than one aspect can challenge the validity of the tests, as they are likely to represent the average tests (p.183). In essence, critical thinking tests need to show the characteristic of being more comprehensive by measuring the effectiveness of individual characteristics, such as open-

mindfulness and reflective stance (Ennis 1993, p.182). This implies the suitability of written tests as opposed to multiple choice tests in measuring critical thinking because characteristics of reflective stance and open-mindedness are embedded within the perspectives of individuals, emerging as interrelated nuances of knowledge. This leads to the understanding that such characteristics cannot be tested in isolation. A recent study by Haynes et al. (2016) reveals how they incorporated short essay type answers into their critical thinking assessment test (CAT) successfully. The instrument included 12 skill areas that were pre-tested as the primary skills that the potential new employees need, and the instrument was described as faculty-driven because the tutors were able to choose the key skills to be measured. Consequently, research findings reveal how (a) 75% of faculty reported that they were able to identify the weaknesses and strengths of their students and (b) 45% reported that CAT scoring has influenced their teaching and assessment practices.

However, although it seems reasonable to create or use specific critical thinking tests for the purpose of evaluation, it is equally important to understand the effectiveness of the existing testing systems than undermining their value. Current testing systems show a remarkable ability to test teaching/learning outcomes, comprising general and specific skills. These testing systems centre rational/analytical thinking (to different extents), often evaluating good thinking skills effectively (Halpern, 2003). In the context of Oman, assessment tasks are carried out effectively, incorporating the continuous assessments and end of semester/year tests as objective (multiple choice) and written (long and short essay types) tests (LC Testing Unit, SQU, 2011). These components indicate greater potential for integrating the evaluation of critical thinking into the existing modes of testing, enhancing testing simultaneously.

3.6. Cultural assumptions about developing critical thinking in students

Beliefs, values and morals, customs and traditions, capabilities and habits, languages and power relations, knowledges, laws, arts, and nuances of tacit knowledges of life; forming a way of life is culture. Examining the role of culture on human capacity in work environments, Hofstede (1993) defines culture as "...the collective programming of the mind that distinguishes one group or category of people from another" (p.89). In Bruner's (1996) view, culture is the "toolkit" of sense-making, contributing to the development of individuals (p.3). The translation is that one is born to a culture and shaped by that culture.

When students display cultural habits in academic environments, they imply that they are products of their culture, affirming Bruner's (1996) idea that education is a process comprising negotiations between culture and the individual. It implies how an individual can display boundaries in thinking because the individual is compelled to use the sense-making toolkit provided by his/her culture. Critical thinking is often seen as a western toolkit or as Barnett (1999) writes, a "...western way of thinking" (as cited by Johnston et al., 2011, p.8). In Johnston et al.'s view (2011), critical thinking is often misunderstood and misrepresented in different cultures. They point out that a non-native English-speaking country may think of critical thinking as a process that essentially questions its context-specific cultural traditions, socio-political issues, and power relations and their social hierarchies.

A closer look at the Omani culture shows that it is "...essentially tribal in nature", to the extent of tribe being prioritised above religion even (Peterson, 2007, cited in Al-Badri, 2012, p.115). Al-Badri (2012) further explains that the Omani tribes are defined more in relation to language and sect than territory or social class. In his view, the thousands of Omani tribes preserve their individual identities by having closely-knit family relations that translate into social hierarchies, reflecting power relations. Based on the Islamic values, Oman reveres unity without discrimination within its culture, but Al-Badri (2012) mentions that in the "...real-world practice, Muslim societies maintain strong hierarchical systems and high power-distances" leading to favouritism and nepotism (p.67). Subsequently, these tribal values and power relations assign meaning to the reluctance that Omani students display in questioning their teachers and knowledge, including the knowledge within the written material (Al-Issa, 2012).

These cultural implications affirm Bailin et al.'s (1999b) stance on teaching critical thinking. In their view, it is "...a matter of teaching students to make appropriate use of the concepts, standards, stratagems and procedures our culture has developed for disciplining thinking and increasing its fruitfulness" (p.297). Clearly, Bailin et al. provide a lens that encompasses sociocultural traits than distancing them. Their statement implies that cultural awareness is an essential element in developing critical thinking in students.

Discussing the centrality of culture in teaching critical thinking, Heyting & Winch (2004, cited in Goddard & Payne, 2013, p.125) emphasise some key considerations in relation to

fostering critical thinking in academic settings. These key ideas are presented below, along with Johnston et al.'s (2011) idea of 'differences in learning styles'.

- (a) nature of criticality that differs individually and contextually;
- (b) ways that different methodologies of inquiry affect criticality;
- (c) varied teachings and teaching methods within domains and contexts;
- (d) different critical thinking practices that contexts and domains feature/prioritise; and
- (e) the differences in learning styles (Johnston et al., 2011, p.32).

These key aspects enhance the understanding of the concept of critical thinking in relation to how it can be context or domain-bound or general within the sphere of education and how critical thinking emerges as a result of focusing on its development. Individual and contextual criticality as well as particular critical thinking practices and learning differences are directly influenced by the cultural traits. The methods of inquiry may vary according to academic domains, though they maintain their regular standards/practices as domain-specific characteristics. These considerations offered by Goddard & Payne (2013) and Johnston et al. (2011) indicate the centrality of culture in developing critical thinking, including all educational aspects.

3.7. Developing critical thinking in general education

The nature of knowledge plays a large role in the controversy of developing critical thinking through domain-specific vs. general education. The two main knowledge categories of declarative knowledge as 'knowledge that' and procedural knowledge as 'knowledge how' (Riley, 1930, cited by Johnston et al., 2011, pp. 76-79) contribute to classifying critical thinking as domain specific or general. Culturally diverse contemporary educational practices that include modern language learning, prompt more ways of seeing the world, according to Johnston et al. and they add three more knowledge categories that influence critical thinking, as shown below:

- 'knowledge why' (Reimer, 1998);
- 'knowledge of what it is to be' (Berlin, 1980); and
- the 'knowledge of and how language is used' (Johnston et al. 2011, pp.76-79).

The rationale is that critical thinking needs different kinds of knowledges to function in different situations, in diverse ways. Critical thinking in a language learning class is different from the way that students in a maths class use critical thinking, requiring different kinds of

knowledge categories that lead to different ways of thinking. For instance, a language learner may need to activate sensitivities and rational thinking to critically evaluate a literary text, whereas a student attempting to solve a problem of math critically, may use logical but also formulaic thinking.

Similarly, seeing critical thinking in relation to different knowledge categories can prompt different teaching stances. This shows that beliefs about the nature of knowledge play an important role in deciding how general and EFL teaching afford the development of critical thinking. The involvement of knowledge categories implies the multi-dimensional nature of critical thinking and the teaching of critical thinking.

3.8. Critical thinking in EFL education

The most important aspect in language learning is meaning-making (Lightbown & Spada, 1999) and its success depends on how well students are intellectually and emotionally stimulated, retaining what is learned. This implies the need for students' active participation in the meaning-making process, which indicate the centrality of constructivist teaching approaches, questioning, and critical thinking in learning (Lunenburg, 2011; Richardson, 2003).

Cummins (1989) notes that curricula content can be effectively covered by enabling learners to memorise the content and language aspects that use higher-order thinking skills, leading to critical thinking. However, the disadvantage is that since language learning is reduced to memorising, focus on developing the aspect of critical investigation of the content (critical reading, for instance) that L2 classrooms can afford may be neglected. This indicates that the traditional approaches to language learning may reduce the its potential to enable the learning of content, functions, and meanings through the discovery of learning and critical investigation. This prompts the need to revisit language teaching approaches and the goals of educational policies in especially, the educational context of Oman, because the achievement of national policy is affected by the beliefs of practitioners, as Cummins discusses.

In Atkinson's (1997) view, focusing on developing critical thinking and integrating the critical investigative aspects into L2 teaching are challenging, as critical thinking is a social practice rather than a set of well-developed instruction in education. In light of that, on one hand, integrating focus on fostering critical thinking into existing educational practices

through appropriate strategies seems an effective measure. On the other hand, critical thinking is not only a social practice from an educational point of view. Critical reading exemplifies how students benefit from developing critical perspectives, fulfilling the social aspect but as the academic requirement; students practise intensive reading, reading with focus, synthesising, analytical reading in addition to the reading techniques. Combining the two purposes, for instance, as Grabe & Stoller (2014) write, students learn to make ‘strategic adjustments’ to their reading abilities to match the purpose of reading.

Reading is central to university students because the success of academic learning³ depends on the students’ academic reading abilities. However, according to Shelyakina (2010) who studied the ‘Academic Reading Challenges for EFL Learners’ (pp.25-31); current EFL reading instructional practices need to make a huge effort to prepare EFL students for academic reading. Listing the reading challenges of the less proficient EFL students, Shelyakina includes the problems of surface-level reading skills, lack of vocabulary, a sense of text structure/genre, reading fluency, and lack of meta-cognitive thinking in academic reading in the top of her list. She further points out that EFL students who lack these skills are unprepared for academic reading at university level. Her discussion implies the need for the low proficient EFL learners to ‘learn how to learn’, which involves higher thinking skills, self-analysis, reflective skills, and meta-cognitive skills that are key components of critical thinking.

Furthermore, affirming the stance of my study, Abrami et al. (2008) emphasise the effectiveness of overt instruction in fostering critical thinking, compared to the implicit input that teachers provide. The researchers argue that fostering the dispositions of critical thinking is important, and that critical thinking and these dispositions need to develop simultaneously. In their view, teachers have the opportunity to ensure that students develop the habits of thinking when students are explicitly instructed. However, in order to understand that their students develop, teachers need to know their students, monitoring them. Abrami et al. also highlight that developing critical thinking is a long-term affair that requires continuation of instruction over a long period of time.

³ Especially, when students must change their medium of learning from L1 to L2 at university level

3.9. Teaching implications

- a.** The primary argument (of this study) about fostering critical thinking is that general education affords the development of critical thinking. General education has the power of strategic teaching to cope with the different and complex levels of thinking skills that critical thinking needs. Hence, students can be taught/trained to activate the key skills of critical thinking in L2/EFL teaching because L2/EFL teaching has the capacity to deal with diverse themes, knowledge sources, skills, and strategies, compelling thinking in critical ways.
- b.** Fostering the dispositions that enable critical thinking is crucial. Focus on skills development provides opportunities for developing the habits of thinking, using specific strategies. Fostering dispositions in education is a necessity because they incline learners to think critically in formal education as well as outside of academia (Ennis 1996; Paul 1983).
- c.** Different contexts may favour different approaches and strategies depending on the contextual characteristics and the nature of criticality that contexts focus on (Ennis, 1996). The characteristics of the Omani EFL context shows the capacity to integrate focus on the meta-cognitive skills development leading to fostering critical thinking (Mehta & Al-Mahrouqi, 2014), facilitating social interaction through constructivist teaching approaches, (Richardson, 2003), questioning (Paul, 1990), teacher-modelling (Bailin et al., 1999b), and practising tasks with focus on transfer of skills (Halpern, 1990).
- d.** The key aspect that develops thinking is the Vygotskian (1979) concept of constructivist learning. Social interaction develops thinking by enabling the understanding of phenomena individually and collaboratively through the use of higher thinking tool of language (Richardson, 2003).
- e.** The development of meta-cognitive skills enhances awareness of self in relation to ‘what’ and ‘how’ of thinking, increasing the potential for critical thinking. The notion is supported by Magno (2010) who studied 240 college students in the Philippines. The study indicates that students with higher critical thinking scores have shown higher scores in the meta-cognitive factors (Watson-Glaser Critical Thinking Appraisal test) of ‘inference, recognition of assumptions, deduction, interpretations, and evaluation of arguments’. In light of these outcomes, Lin’s (2001) suggestions of (a) giving

opportunities and assisting students to self-evaluate what they know against what they do not know, (b) encouraging explicit explanations of their views and how they think, and (c) having class discussions about the value of meta-cognition and activities can lead to the development of meta-cognitive skills.

- f. Among the diverse teaching strategies, teacher-modelling has been identified as a powerful source for teaching and teaching thinking skills (Bailin et al., 1999b; Brooks & Brooks, 1993). Teachers’ use of think-aloud strategies and questioning (Paul, 1990) enable students to notice phenomena and situations that they need to be critical about. Furthermore, practising tasks deliberately for transfer of skills (Halpern, 1990), integrating meta-cognitive awareness can enhance the awareness of the skills, practice, and the outcome.
- g. EFL teaching at the LC at SQU has a wider scope for integrating the afore-discussed teaching strategies that promote critical thinking and meta-cognitive skills especially, because both foundation and credit level course books are increasingly being produced as in-house materials. Since raising awareness within teachers who are material writers through professional development courses is an achievable task, student handbooks that focus on developing critical thinking meaningfully can be produced.
- h. However, as cultural sensitivity is a significant determining aspect in practising and teaching of critical thinking, it is important to take pragmatic measures in introducing and practising the concept. Some of the realistic goals include,

Table 2. Goals to follow in adapting an approach to critical thinking

Goals to follow in introducing critical thinking in the context	Practical translation of the goal into teaching and learning practices
<ul style="list-style-type: none"> • enhancing existing academic practices that contribute to foster critical thinking; 	focusing on skills development, incorporating critical thinking as an objective of classroom teaching and assessment practices.
<ul style="list-style-type: none"> • introducing the concept “partially” (Ennis, 1998, p.20), treading softly, identifying context-specific assumptions; 	careful planning and implementation strategies to initiate the concept, taking into consideration teacher/material writers’ knowledge and experience of the contextual assumptions.

<ul style="list-style-type: none"> • infusing “a combination approach” that includes emersion and infusion approaches (Ennis, 1989, p.9); 	<p>the EFL education courses at university level (foundation and credit) can afford both incorporation and infusion of the concept into practical teaching, as EFL teaching combines the important knowledge categories of knowledge that; knowledge how; knowledge of the language.</p>
<ul style="list-style-type: none"> • exploring potential avenues, i.e. avenues through which critical thinking can be developed; 	<p>problem-based learning projects that both foundation and credit EFL courses engage learners in, can be enhanced, incorporating students’ real-life economic, socio-political and cultural issues, technological aspects, and academic concepts.</p>
<ul style="list-style-type: none"> • identifying a context-appropriate definition of critical thinking. 	<p>Teaching and assessment of critical thinking depends on adopting an appropriate definition that emphasise the context-specific purpose in fostering critical thinking in learners. This will encourage the integration of realistic assessment strategies, encouraging meaningful assessment (discouraging meaningless practices such as 100% rote-learning of the learning content).</p>

The Omani education system has recognized the importance and benefits of EFL education in shaping a skilled Omani workforce that is able to take part in the worldly affairs, communicating in English (MoE, 1996). EFL education can be made meaningful by acknowledging that “learning another language is not just a matter of learning to speak differently; it is also learning to think differently” (Boroditsky, 2013, cited in Ricci & Huang, 2013, p.49). The underlying principle is that the broader views and concepts that the new language lets in will be impoverished and less effective without integrating its traditions of thinking.

These elements of learning prompt a revisit to the goals of education. On the other hand, incorporating effective practices into syllabi may not guarantee effective fostering of critical

thinking, since a practice is an immensely complicated process involving the transformation of concepts, knowledge categories, skills, practices, and traditions that need adapting to each other. The implication is that teachers are the most significant phenomenon in developing critical thinking in learners because "...though, teaching is founded on the principles of discovery of learning", it is still an instructional practice, centring teachers as the fundamental source that enables and enhances those discoveries in their students (Bransford, 1979, cited by Vermillion, 1997, p.19). Just as there is no single method to teach how to think critically, one method may not compensate another because a method is effective to the extent that a teacher employs it in specific situations, enabling learning in students.

Despite teachers' awareness and commitment, lack of time in classroom teaching is seen as a challenge in perhaps, every context of education. Teachers' willingness to embrace learner-centred approaches and focus on the development of critical thinking can be ebbed because these are time-consuming phenomena that affect the institutional goals and syllabus completion. Teachers see overloaded syllabi and overloaded classrooms (with large numbers of students) as serious impairments to fostering students' thinking skills (Richardson, 2003).

Towards addressing the time issues, different teachers may employ different strategies but in Pope's (2010) view, assigning homework is an effective strategy that reduces stress for both teachers and students, increasing students' motivation and decreasing the classroom workload. The highest payoff of homework is that 'when students stop thinking about academic instructions'; they begin to create 'their own interpretations', leading to creative and critical thinking practices (Pope, 2012). Pope highlights that adequate time and low 'affective filters' that homework provides (Krashen, 1980) can contribute to increasing students' creative and critical thinking.

3.10. Constructivist perspectives that can contribute to developing critical thinking

Constructivists, in essence, believe that knowing is a process of individual construction between the individual and the environment (Larochelle et al., 2009; Richardson, 2003; Phillips, 1995). Constructivism has been acknowledged as a theory of knowledge and learning in the field of education (Richardson, 2003). There are also different versions of constructivism (Phillips, 1995; Vanderstraeten & Biesta, 1995), addressing diverse issues related to knowledge and pedagogic constructs in different ways. On the one hand, diverse interpretations of a concept can contribute to examining the complexities and unresolved

issues regarding phenomena. On the other hand, a multitude of interpretations can slow down the focus and development of crucial issues that need addressing in depth. The three major realms of constructivism, according to Phillips (1995), are; social, cognitive, and active constructivism. They are looked at briefly to find out how they explain; knowledge, the processes of knowing and learning, the relationship between language and thinking, and their effective contributions to knowledge, leading to developing critical thinking.

3.10.1. Dewey's active constructivism

John Dewey (1859 - 1952) was an American philosopher, educator, scholar, a pioneer in functional psychology and the leader of the 1920s' progressive education movement (Talebi 2015; Copleston 2003; Garrison 1999). Deweyan epistemology has been identified with the constructivist principles over the years as an "active constructivism" that identifies coming to know 'as a doing that is participating with the object of knowledge' (Phillips, 1995, p.9). Furthermore, as Vanderstraeten & Biesta (1995) note, Dewey's active constructivism has been synonymous with learner-centred education.

The relevancy of the Deweyan concepts to the contemporary theories of education begins with Dewey's explanation of how 'mind' functions through association of behavioural patterns. Dewey highlighted that the increasing social interactions increase the problems that need resolving; therefore, education needs to prepare children to handle situations in life by enabling them how to be in command of their ability to think and use all of their capacities to meet the challenges of life (Garrison, 1996). Dewey's belief was that learners are educated only indirectly through the environment in all its complex aspects and dimensions, indicating that Dewey interpreted the process of meaning making through social interaction as an active and constructive process that contribute to the development of mind.

As Vanderstraeten & Biesta (1995) write, knowledge, in a Deweyan sense, is a result of the outcomes of an inquiry. To grasp this notion further, they raise the two important questions of 'whether the Deweyan epistemological framework promotes the achievement of knowledge as a goal of teaching and learning' and 'whether a constructivist model accommodates such an attainment?'. Their response is that the answer depends on one's view to knowledge because naming the outcome of an inquiry cannot guarantee a truth in a subjectivist's paradigm. The inference is that knowledge is not an external reality, but an independent truth, emerging through action (participation). Therefore, knowledge can be

constructed by individuals and this process can be facilitated and fostered in teaching, enabling it to be ‘a natural process or an activity’ (Copleston, 2003, p.358).

Dewey (1966) defined education as a “...reconstruction or reorganization of experience which adds to the meaning of experience and which increases ability to direct the course of subsequent experience” (p.76), indicating to a process that involves reconstructing of individual experiences that are gained from the environment. Both the individual and the society are prioritised within the learning that emerges from this process. Thus, active constructivism considers the individual and social elements equally important in constructing knowledge.

‘Reconstruction or re-organisation’ of experience reflects, grasping of the value of the experience because ‘the function of reflection is to give value to the experience’ (Rodgers, 2002), enabling conscious control of potential similar experiences. Individuals can reflect and use meta-cognitive skills to identify and control their mental actions critically. Therefore, in Dewey’s understanding, learners’ continuing interaction within the social realm (the school life and life outside of school), continue this never-ending process, contributing to the continuity of growth.

Learning process benefits from this continuity of activities but it is problem-solving that enriches the development of thinking. Problem-solving compels learners to use creative ways of thinking. It encourages active mental and physical participation, contributing to the development of self and the society by solving community problems. Dewey (1949) said “[a]All things react in some way to their environment. But they obviously do not all react in the same way” (cited in Copleston, 2003, pp. 354-355) because people act ‘individually’ based on their experiences, habits, and the level of engagement. Therefore, to respond to the unknown, students need to be equipped with skills of thinking as habits of thinking. Since it is ‘the problematic’ that stimulates response, acting, and thinking in resolving a problem; education needs to provide experiences close to life’s real problems in developing the minds of learners.

Active constructivism implies that ‘thinking is not separated from feeling and acting’, indicating how problem-solving needs to become a key element of learning that makes life meaningful to learners (Garrison, 1999). Dewey’s ‘five steps of analysis’ that effective inquiry should have explains this well:

- to begin with, a genuine problem should occur where reasoning begins, and brings about new relationships between the individual and social conditions of life in a progressive manner;
- the second step is that the problem needs to be specified. In that half of the problem is actually solved when the problem is identified (using existing knowledge and analytical skills). This shows the significance of identifying the problem and the need to teach how to identify a problem (using problem-mapping skills [Hager, 2005]) as good habits of inquiry;
- the third step includes, introducing the suggestion or the hypothesis (should it prove effective, solving the problem) that involves creative thinking, self-control of the skills of reasoning. It is a crucial stage that identifies learners' abilities of logical reasoning and wishful thinking;
- the fourth step includes how learners frame their hypotheses through meticulous reasoning and technique so that they can compare and identify the value of the current hypothesis. However, concerning the techniques of solving a problem; Garrison (1999) points out that measuring and quantifying are means to solve the problem and that they are never the end;
- the final step is testing of the hypothesis that establishes the conditions that warrant the learner's belief that the idea/course of action is true (Garrison, pp. 9-10).

In Dewey's view, language and thinking are interrelated as the development of mind depends on the development of language. In 'How We Think', Dewey (1910) wrote that "...the conviction that language is necessary to thinking (is even identical with it) is met by the contention that language perverts and conceals thought" (p.170). Consequently, identifying the functions of language, Dewey reveals how thinking originates, develops, and envelopes thought. For him, thinking is impossible without language (including gestures, visual images, signs), playing a significant role in transforming the individual mind from the biological nature to intellectual level. Language does not clothe thought (enabling the transferring of thought from one individual to another) in a Deweyan sense; instead, language embodies the meanings constitutive of culture, society, and environment, of which learners come to know through active participation.

Dewey contended that development of language begins from the ‘private language’ that children use in problem solving. Hence, the development of language occurs naturally within individuals through their social interactions that include the primary uses of language such as expressing oneself. Within social interaction, language is the link that mediates ‘the socially predetermined meanings’ that are embedded in individuals’ minds prior to collaboration (Vanderstraeten & Biesta, 1995). Deweyan view indicates that language learning is not just vocabulary-studying in isolation because “...the fundamental difficulty for the learner lies not in the new word, but the meaning” (Dewey, 1910, p.185). The implication is that the teaching approaches that enable construction of meaning through interaction can lessen and eliminate this primary obstacle to learning. Meaningful interaction therefore, activates learners’ knowledges, capacities, skills, and diverse thinking skills, which function through language, implying the significance of language to thinking and learning.

Significantly, Dewey shows that education is not mere mastery of content knowledge but involves the integration of life experiences that need to be absorbed as values through reflective thinking and inquiry. It is a process that contributes to the development of attitudes in relation to the new experiences, indicating the need to adopt the approaches of problem-solving integrating the individual and the social experiences as a method of teaching and a goal of education. The role of the teacher consists of being a facilitator of problem-solving and a guide, in a Deweyan sphere of education, where a teacher models, participates, acts, and questions, helping students to build their “...own bridges from present understandings to new, more complex understandings” (Brooks & Brooks, 1993, p. 83). Deweyan constructivism centres the child, active participation, and reflective learning through dialogic teaching in the process of education, reflecting individual construction of meaning.

3.10.2. Piaget’s Cognitive constructivism

The concept of cognitive constructivism derives from the principles of Piaget’s (1896 - 1980) cognitive theory of intellectual development. This Swiss psychologist published his work in 1936, describing it as genetic epistemology (or the origins of thinking). Piaget was immersed in finding out how children form fundamental concepts like quantity, time, causality, and justice, through his systematic observational studies. Consequently, Piaget’s cognitive theory grounds that children possess a genetically evolving basic mental structure

that develops into complex adult intellectual capacities through individuals' active participation in the world (Glaserfeld, 2002).

Through these structural properties of thinking; Piaget's theory of cognitive construction examines the origin of knowledge, its development, and validity. The main goal of the theory tries to explain the two phenomena of "generativity and rigor in human knowledge" (Carpendale, Müller & Bibok, 2008, p.798). Generativity refers to the invention or novelty and rigor, which includes the need for a statement to be logical when uttered by any rational human being.

Cognitive constructivism implies that individuals construct 'knowledge' through their action; and therefore, understanding is essentially, an invention (Cole & Wertsch, 1996). The emphasis is that the development of individuals occurs through education, which is the social environment. This indicates how learning is developmental, involving construction of knowledge through self-generation and social interaction, building up on existing (prior) experiences.

In relation to educational implications; the biological aspects are accountable for the processes of the maturation of mind and physical attributes. Physical attributes include perception, learning, active participation with the environment, and motivation (which education can externally provide for the learner). The process of adaptation refers to how individuals respond to the environmental stimulations, learning from them simultaneously. This includes the organization of schemata through assimilation and accommodation into mental structures for the growth of the mind. Hence, the theory supports what it claims, indicating that individual's intellectual development comprises organization and adaptation to the environment as an integrated process. The theory establishes that biological development (as identified in the four stages) validates intellectual development. Thus, as Wadsworth (1971) highlights, 'intellectual functioning is a specific mode of biological action' that allows an individual to adapt to the environment, organising the experiences into mental structures.

Within the theory of cognitive constructivism; the process of intellectual organization and adaptation is understood within the four basic cognitive concepts of schema, assimilation, accommodation and equilibration. Schema/schemata are the phenomena associated with memory, representing the mental structures that individuals store

(classifying and organizing) their experiences that have been gained from the environment (Wadsworth, 1971). They are prone to change over time, developing through the interactions with the environments and contributing to the intellectual development of individuals. Beginning with simple mental structures, developing through social interaction; they develop into complex schemata that adults possess through higher mental functioning as a result of the biological developmental stages of assimilation and accommodation.

Assimilation accounts for the process through which the new phenomena (perceptual, motor, or conceptual) are classified and grafted onto the existing cognitive structures (schemata) of an individual. The new stimuli are integrated through this cognitive process. Assimilation occurs all the time, continually in an individual's mind and it is a part of the development process. Accommodation facilitates the fitting or assimilation of new phenomena into existing schemata. Within the process of accommodating; an individual may position the new phenomenon by modifying the existing schemata or creating a schema. Individuals create more complex schemata through assimilation and accommodate repeatedly (Wadsworth (1971). This implies that accommodation contributes to a qualitative development while assimilation accounts for a quantitative development of adaption and development of intellectual structures.

The third phenomenon, equilibrium is referred to as the state of balance between assimilation and accommodation. The imbalance between the two processes (of assimilation and accommodation) is disequilibrium. Then, the process which accounts for the moving from a state of disequilibrium to equilibrium, facilitating the grafting of the external experience onto the internal mental structures is; 'equilibration'.

The theory of cognitive construction prioritizes the biological developmental stages as they contribute to the development of the primary mental structures. The implication is that learning is incapacitated without the genetic development that occurs through these biological stages. Without developing specific structures that the biological stage allows for intellectual development; a child may not be capable of understanding formal instruction within the learning environment. The four stages of development are,

- sensory-motor: birth – 2 years;
- pre-operational: 2-7 years;
- concrete operational: 7-11 years; and

- formal operations: 11 years and up (Wadsworth, 1971, p.26)

Individuals develop different intellectual abilities during each stage and each stage depends on the next and their development in the particular order is important. Interacting with the world, learners need to play an active role in the constructive process. It is an indication that students are not passive recipients of knowledge, but that knowledge is acquired and created through active participation in the environment with the social others including parents, teachers and peers (and self).

The development of language occurs through social input. However, biological development is central to all learning. Culture, as a social environment, provides learners with social knowledge that includes rules, laws, values, ethics and language with students further acquiring and enhancing language through social interactions. Conversely, it is noticeable that the role of language in the development of individuals is discussed less by Piaget compared to the emphasis that Vygotskian constructivism (1979) places on the point.

In brief, the Piagetian theory of genetic constructivism contributes to the idea that biologically inherent knowledge, developing through innate cognitive means and social interactions lead to the intellectual growth of learners. Furthermore, according to Cole & Wertsch (1995), Piagetian constructivism implies the three significant phenomena of:

- (a) content (as what children already know about the element through sensorimotor and conceptual learning that vary according to age);
- (b) function (as the specific characteristics of intellectual activity assimilation and accommodation stable elements); and
- (c) structures (which are the organizational properties that are schemata) lead to significant implications in learning.

They indicate that learning is an individual affair placed within the social realm of discovery and creation aided by biological development. It emphasises the need to treat students as active participants of knowledge construction as opposed to passive recipients of knowledge, indicating that effective teaching comprises creating opportunities and employing strategies that encourage interaction.

3.10.3. Vygotskyan social constructivism

Vygotskyan (1979) social constructivism is defined as a theory that describes knowledge and learning, relating to knowing and how one comes to know (Larochelle et al., 1998; Brooks & Brooks, 1993). Social constructivists view knowledge as ‘individual, developmental, culturally and socially mediated, and therefore, non-objective’ (Brooks & Brooks, 1993). In social constructivists’ view, knowing is individual and non-objective as individuals create their own understandings by interacting with their environment (Lunenburg, 2011). Hence, knowledge is developmental since social interactions continue in life with language and signs stimulating thinking. This shows the significance of culture and the context in creating knowledge.

The process of knowing is a complex mental affair that involves interaction with cultural, historical, and institutional settings as cultural mediation (Rogoff, 1990; Wertsch, 1991). Reality is an essential component of knowing for social constructivists as individually constructed reality contributes to subjective, transformative, and multiple realities. Knowing occurs as a result of mediation which is the process of development of consciousness within Vygotskyan perspectives (Cole & Wertsch, 1995). A basic understanding of the Vygotskyan concept of mediation is explained through the post-Vygotskyan representation known as Cultural-historical activity theory (CHAT) (Leont'ev, 1974).

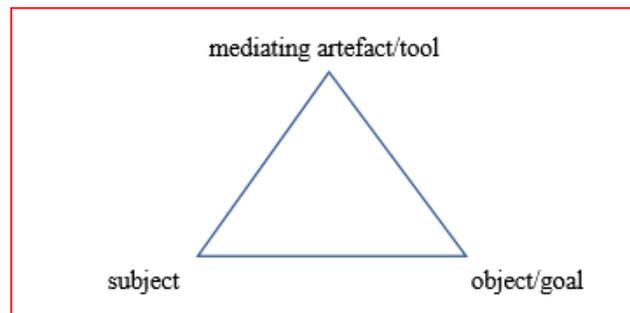


Figure 4 A basic representation of mediated action triangle (cited by Cole & Engeström, 1993)

As the figure above indicates, the subject’s interactions with the artefacts and objects (goals/the environment/problems) stimulate and activate mediation. Mediation begins with the use of ‘signs’ by the subject. Vygotsky (1981c) described that signs are the “psychological tools” that the culture provides, such as language, systems for counting, art, writing etc. (cited in Wertsch & Tulviste, 1992, p.551). They are not represented within the

triangle because they are not concrete phenomena. Signs are initial learning aids because they may be transformed into artefacts depending on how they are used by individuals. An explanation on the exact time that artefacts become cultural artefacts do not appear within constructivists' writings, according to Wertsch & Tulviste (1992). However, what is clear is that when acquired knowledge as signs/artefacts is used in creating new knowledge, the acquired knowledge is accommodated, adding this knowledge to one's schemata. Within this transformation, artefacts become cultural artefacts as skills/knowledge/tools that learners have mastered. Thus, individuals develop knowledge through mediated action (which is the activity/interaction using signs/artefacts) between the individual and the environment (subject and the object/problem) (Leont'ev, 1974).

CHAT is the guiding framework for constructivist teaching, learning, and creating learning environments. CHAT accounts for the key phenomena of the environment/culture, an individual's background knowledge, the role of input (signs/artefacts), the problems/situations, and motivation (stimulating). It also explains how different activities (studies) in different forms (as human action/learning practice) within both individual and social level develop human thinking as a process of knowing.

A 'second generation' (Leont'ev, 1974) and a 'third generation' (Engeström, Miettinen, & Punmaki, 1999) of CHAT have appeared, though the function of CHAT remains the same, contributing to shed light on how individual development occurs as a result of social interaction, transforming the socially created knowledge into individual knowledge. Transforming socially created knowledge into individual knowledge is a central element known as the concept of internalization within constructivist perspectives. Explaining the concept, Vygotsky (1981b) said that,

Every function in a child's cultural development appears twice: first, on the social level, and later, on the individual level; first *between* people (*interpsychological*), and then *inside* the child (*intrapsychological*). This is equally true with regard to voluntary attention, logical memory, the formation of concepts, and the development of volition... (cited by Wertsch & Tulviste, 1992, p.549).

Knowledge (understanding) is first acquired through mediated action in the form of views of the social others that include family, peers, teachers and so on (interpsychological). Then, it is through internalisation that knowledge becomes individual (intrapsychological). The implication is that the process of internalisation influences changes to the individual's

knowledge. This shows that the process involves higher mental functions (such as language, analytical thinking) that stimulate an individual's existing knowledge, contributing to the development of higher mental functions (which include language and thinking). Vygotsky (1979) said that development of language is development of mind which is the development of the self.

Language is the most important cultural tool that contributes to the development of thought through social interactions, which makes language and thinking interdependent and interrelated within the process of individual development. Vygotskian perspectives on how thinking develops through language are summed up by Lantolf & Thorne (2007) saying that,

Vygotsky acknowledged that the human mind was comprised of a lower-level neurobiological base, but the distinctive dimension of human consciousness was its capacity for voluntary control over biology through the use of higher-level cultural tools (i.e., language, literacy, numeracy, categorization, rationality, logic.) (Lantolf & Thorne, 2007, p.198).

Language is a higher mental function that enables knowing. This is exemplified as language is represented within the triangle of CHAT as a cultural artefact, where individuals make sense of the world using their higher mental functions in interaction. Regarding the nature of the development of language and thought together, Vygotsky (1934) emphasised that thought develops as a whole but language develops in units. Supporting the idea, Bruner (1996) discusses how language develops in units, articulating thought. The concept is in fact, exemplified through children's learning of utterances as 'chunks of language' appear first in their vocabulary, in relation to both L1 and L2 learning. It also evinces that chunk learning is meaningful learning as well as a learning strategy of both L1 and L2 learners. L1 learners may need knowledge of the linguistic aspect of language to know about the language, and L2 learners depend on formal language teaching/learning to not only learn about the linguistic aspects but also to learn how language functions, construct knowledge, interact, think, and link their cultural identities, implying the use of higher order thinking skills, such as analytical thinking and meta-cognitive skills.

Higher mental functions developing through higher-level cultural tools (language, analytical thinking etc.) are important for individuals to make sense of their worlds. Human interaction produces different dimensions of knowledge, associating with the historic knowledge (phylogenetic) and the developmental history of relationships (ontogenetic

knowledge) emerging from speech and thought. These significant kinds of knowledges are central to making meanings within complex problem-solving that requires the use of “higher-level cultural tools” (Cole & Wertsch, 1996). This shows that the link between the higher mental functioning and the environment (the problem in the problem-solving activity in Vygotskian terms) is language because “...language is the most pervasive and powerful cultural artefact that humans possess to mediate their connection to the world, to each other, and to themselves” (Lantolf & Thorne, 2007, p.201). This discussion shows that language indeed, is a higher mental function, enabling diverse thinking modes, affording critical thinking. The emphasis is that this symbolic tool is the key to the development of the intellect and EFL teaching. As EFL teaching centres the development of language, it has the potential to focus on developing the aspect of thinking, leading to critical thinking.

Any theory that relates to learning needs to acknowledge the complex nature of knowledge, explaining the process of knowing so that principles can be drawn in forming teaching and learning practices. Vygotskian social constructivism shows that it is fundamentally a theory about knowledge and the process of knowing and that the relevance of the theory to the processes of teaching and learning is logical and comprehensive. A closer look at the key aspects of this theory of knowing shows how learning is enabled, leading to the development of thinking.

The rationale that individuals create their own knowledges through social interactions, indicating knowledge as ‘subjective, developmental, and culturally-oriented’, highlights that learner is the central figure within the process of learning rather than the teacher. This implies a shift from the pedestal that the traditional teacher occupied, showing the need to embrace the role of a teacher that facilitates learning in students, incorporating the teaching approaches that centre their students. Constructivist teachers evaluate learner needs (rather than assigning tasks from course books routinely) and design and incorporate diverse scaffolding techniques to enable learning in their students. Consequently, students who are unable to perform the required tasks by themselves are facilitated through the help of the ‘more knowledgeable others’ who can be peers and teachers. Explaining the concept of scaffolding, Vygotsky (1979) highlights that scaffolding relates to learners’ shift from the unknown to the known. This shift can involve knowledge and skills as the primary categories of students’ problem-solving skills.

They are the skills that the student,

- cannot perform;
- may be able to perform; and
- can perform with help.

These skills categories can effectively guide teachers to evaluate learners, identify learner needs, and design instructional tasks that benefit learners individually and in general. Thus, constructivist teachers can identify the kind of scaffolding their students need, evaluating when to shift from modelling/scaffolding and hand over the responsibility of learning to their students, gradually.

Scaffolding enables assistance of the others through different modes of interaction, prompting the use of diverse mental functions. There can be both explicit and implicit scaffolding, inspiring constructivist teachers to develop a repertoire of scaffolding strategies to make their students acquire, practice, and master specific skills. Scaffolding affords (a) clear task instructions and directions, (b) engaging students in the task, (c) decreasing student disappointment at low achievements as students acquire different knowledges through interaction identifying/evaluating one's own knowledge, and (d) contributing to efficient teaching and delivery of instructions enhancing learning (Donato & McCormick, 1994).

Scaffolding is interrelated with the symbolic concept of the zone of proximal development (ZPD), which is defined as,

...the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers (Vygotsky 1978, p. 86).

ZPD is an important idea that helps teachers determine the level of scaffolding that learners should be provided with. ZPD compels teachers to identify effective modes of learning that can facilitate their learners. Delving into research on language learning within constructivists' perspectives, Lantolf & Thorne (2007) insist that "...evidence of development from this perspective is not limited to the actual linguistic performance of learners" (p.208). It brings out how in a constructivist collaborative learning environment, students can notice, imitate, acquire, and develop diverse skills, behavioural patterns, and attitudes of more knowledgeable others.

The development of a learner can be seen at two different levels: first, one's independent ability to perform the task through scaffolding and the second level will be observable, depending on how closely the performance of the learner is observed, because "development in the ZPD is understood as the difference between what an individual can do independently and what he or she is able to do with mediation" (Lantolf & Thorne 2007, p.208). Therefore, active participation in ZPD enables learning in students in different ways to different extents, indicating that 'learning occurs' whether it is one-hundred percent or less than that because in constructivist teachers' view, development is achievement rather than mastery.

Constructivist teachers strive to create opportunities that enhance social interaction as collaborative learning. Since engaging in social interaction is active participation, creating interactive opportunities can enable even the reticent students to interact in stress-free atmosphere, where they can develop self-confidence, the skills of listening and inquiring, imitating, expressing one's own views, team skills, activate higher thinking skills such as analytical thinking, reflective thinking, and meta-cognitive thinking. However, to reap the benefits, teacher and learner awareness about the principles and teaching/learning strategies of constructivist learning practices can be central as the following research shows.

Emenyeonu (2012) conducted a study to find out how the Omani EFL teaching context incorporates student-centred learning, and the research reveals more negative aspects than positive aspects. One of the positive aspects is that some EFL teachers attempt to incorporate learner-centred approaches at school levels. However, the teacher-participants in Emenyeonu's study also highlight an incident where "...passive students complained", asking the active students to "stop wasting the time..." by interacting within the actual interactive learning sessions. One of the implications is that learner-centred teaching can be met with criticism, arising from a lack of awareness about these teaching approaches, the benefits, lack of language/L2 skills (of the Omani EFL learners), and cultural/gender distances (Emenyeonu, 2012, p.250). Consequently, as teacher interest and motivation can be ebbed by these barriers, these reasons add to the causes why Omani teachers may revert to traditional teaching approaches in the Omani context. Unsurprisingly, despite the recommendation of the ministry of education (on integrating learner-centred teaching approaches); the actual implementation of learner-centred approaches may need close reviewing within the EFL teaching context (Al Nofly, 2010).

This is identical with the constructivists' notion that the context is central to meaning-making and therefore, the nature of the context affects learning (Wertsch, 1991). As individuals inherit the natural historical context that they live in and learn the symbol systems (as language, numerical or counting systems, and logic etc.); the formal learning environment as an individual's social context can also play a key role in the developing of mind. When academic environments that can facilitate students to interact, inquire, solve problems, and construct knowledge are created as constructivist learning environments (CLE); the acquisition of language and symbol systems is facilitated.

In learning, imitation is a significant cognitive process that allocates cognitive resources such as memory and acquisition. Chunks of learning acquired through imitation are made coherent and meaningful because imitation occurs within ZPD scaffolded by more knowledgeable others (Bruner, 1987). In academic environments, teachers rely on the important role that imitation plays as a learning strategy to teach pronunciation and the use of various grammatical forms in EFL learning.

Creating CLEs that provide students with the opportunities to interact and solve problems with the assistance of more capable peers is a key characteristic of constructivist teachers. Collaborative learning within CLEs stimulates students' interaction and inquiry, contributing to knowledge creation through shared meanings in EFL learning. Shared meaning implies the meanings that the others have attributed to a particular word compatible with an individual's own (Wertsch, 1991). Shared knowledge is important to knowledge construction as individuals first create social knowledge influenced by the others before internalising that knowledge through innerspeech. According to Vygotskian perspectives, innerspeech develops from 'egocentric speech'⁴ in children, contributing to the development of language and thinking (Wertsch, 1991). The complex process of transition from thought to speech involves the partitioning of thought and its re-creation in words, and innerspeech plays a central role in individual's development of thought and language. Researchers have delved particularly, into the area of the cognitive role of inner speech in relation to problem solving, emphasising its significance in the education context (Appel & Lantolf, 1994). Ehrich (2006)

⁴ In Vygotskian view, egocentric speech indicates a self-regulative function of the child's speech, showing the transitional stage of the child's mind from vocal to innerspeech. Children use innerspeech to plan/regulate their activities, resulting from their social involvement (Wertsch, 1991).

who explored innerspeech and its link to reading, discusses how innerspeech acted as a two-way mechanism. In his evaluation, innerspeech helped to condense chunks of text into compact meaning units for eliciting meanings when reading cognition became challenging. The outcomes of the study imply that the analysis of innerspeech can reveal how students use their cognitive capacities in learning. As these key concepts are activated within interactive learning, creating constructivist learning environments becomes central to promoting active participation of learners in order to enhance the use of their thinking skills.

3.11. Context-specific research on fostering critical thinking within EFL education

Consistent with the benefits of integrating the principles of social constructivism (Ehrich, 2006; Appel & Lantolf, 1994), several researchers from the Omani context highlight the need to develop critical thinking in Omani learners within EFL teaching at university level (Tuzlukova, Al Busaidi, & Burns, 2017; AlKhoudary, 2015; Thakur & Al-Mahrouqi, 2015; Al-Issa, 2014; Mehta & Al-Mahrouqi, 2014; Emenyeonu, 2012). Collectively, these researchers examine a range of theoretical constructs in relation to developing critical thinking within EFL education, including; the effectiveness of explicit instruction, the role of learner-centred teaching approaches, and achieving the national socio-cultural aims as well as individual personal goals (as academic success), leading to job performance. In addition to these on-going academic debates, a symposium on developing critical thinking has also been held in the College of Engineering at Sultan Qaboos University (Oman Times, 2017 April). These endeavours also evince that the focus on developing critical thinking in the education sphere of Oman has begun only recently.

Among these significant contributions, Mehta & Al-Mahrouqi (2014) examine developing critical thinking in EFL learners in writing through classroom instruction. They also focus on the transfer of critical thinking skills from reading to writing among students. In their findings, Mehta & Al-Mahrouqi (2015) reveal that contextualisation of thinking promotes the critical aspects of thinking. Providing evidence, students exemplify how the critical aspects that they uncovered during their discussions have been transferred to their writing. Affirming their stance, the authors suggest the need to focus on fostering critical thinking through practical classroom teaching and assignments rather than awaiting new developments in methodologies to teach critical thinking. Clearly, Mehta & Al-Mahrouqi's study supports that critical thinking is teachable through (a) explicit instruction, (b) can be

reinforced by reflection and teacher-peer discussion (as expressing one's view), and (c) the process of writing (including multiple drafts). This study also shows that teacher-peer discussions have scaffolded students, enhancing their understandings. Mehta & Al-Mahrooqi highlight how constructivist learning environments (CLEs) facilitate knowledge construction, driving students to think critically.

Furthermore, AlKhoudary (2015) also investigates how critical thinking promotes students' writing at a university college in Oman. The findings of the study reveal that the context of Oman still favours the traditional teaching practices especially, in higher education. AlKhoudary is concerned that because teacher-centred practices are less likely to focus on promoting student-teacher interaction or student-student interaction, affecting the exploration of schemata in a writing class; teacher-centred practices can hinder effective writing. Consequently, AlKhoudary suggests that teachers should make an effort to integrate critical thinking into EFL writing. Moreover, consistent with Ennis' (1998) idea, AlKhoudary rationalises that integrated reading and writing provide the context, enabling thinking about something 'critically'. The study concludes that (a) engaging students in critical thinking has contributed to enhance students' writing, empowering them and that (b) teachers need to provoke students' intellectual abilities, communicative skills (as social interaction in the writing class), and critical thinking to enable effective writing. These conclusions exemplify that the implementation of learner-centred teaching approaches that activate prior knowledge through student-teacher interaction and higher thinking abilities are central to developing critical thinking in EFL education.

Among the other prominent studies, Al-Issa (2014) discusses how Omani EFL teachers play a vital role in influencing the development of critical teaching and learning in the Omani context. Similarly, a study by Tuzlukova et al. (2017), conducted at the LC at SQU reveals that EFL teachers prefer to align with teaching methods that involve communicative approaches, in the belief that communication (social interaction) promotes critical thinking. These EFL teachers (the research participants) identify the need to develop critical thinking in Omani learners to increase their employability. Consistent with the expert views (Paul, 1990; Ennis, 1998), Tuzlukova et al. (2017) highlight that language teachers need to understand what critical thinking means in order to engage their learners in meaningful activities that drive their students to think critically.

Regarding the challenges of teaching critical thinking, Mehta & Al-Mahrouqi (2014) assert that fostering critical thinking can be challenging in the Omani context where EFL classrooms comprise mixed-ability learners. Since SQU, as the national university, welcomes students from the nine regions of Oman, EFL classrooms at SQU comprise a wide student ability range. One of the effective solutions to address the issue of mixed ability learning can be the implementation of learner-centred approaches to EFL teaching, because less capable peers can be scaffolded by the more capable peers in CLEs using diverse scaffolding techniques.

This brief discussion on the findings of the context-specific research sheds light on the current situation of the EFL teaching in the context of Oman. These findings contribute to raising awareness of the need to fostering critical thinking as well as the academic approaches towards fostering critical thinking in education in Oman. In short, constructivist principles of knowledge and learning influence to transform EFL teaching approaches into modes of teaching that centre learners and the processes of constructing knowledge rather than teaching practices that view knowledge as subjective, developmental, and context-bound. While there is focus on skills development within EFL teaching as the development of language is interrelated to thinking which is the development of mind; EFL teaching practices that incorporate constructivist teaching principles informed by CHAT, afford the development of meaningful learning, fostering thinking. The above discussed constructivist stances seem to emphasise that constructivist teaching promotes, not limiting to,

- empowering students, encouraging them to become accountable for their learning;
- active participation in learning and constructing knowledge;
- modes of learning that relate to peer and student-teacher inquiry rather than teacher voice;
- learning stimulated by the physical form of the learning environment facilitating interaction leading to collaborative construction of knowledge; and
- teacher role as the facilitator, shifting from the teacher-dominated classes into learner-friendly atmospheres, shifting the power dynamics in student-teacher relationships at the same time.

3.12. Summary of chapter three

This chapter began with an introduction to the concept of critical thinking within educational perspectives. It adopted the view that critical thinking is an intellectually sustained thinking skill, comprising reflective, rational thinking to reach justified conclusions

that result from examining phenomena or situations critically. This definition reflects the stance of this research that critical thinking can be developed in general education and therefore, EFL education. This definition relates to the significance of dispositions, key skills, and the components of critical thinking, indicating that the development of those aspects impact on the development of critical thinking. Furthermore, as skills can be practised critically or uncritically, chapter three also identifies the difference between critical and uncritical thinking, emphasising the need for the Omani students to develop critical thinking.

Considering the significance of the sociocultural aspects in shaping the educational elements of the context, the study suggests focusing on an infusion approach that combines/incorporates effective teaching/learning practices into existing curricula and syllabi. In support, the chapter briefly examined how the key teaching/learning principles of the three major constructivist theories contribute to develop learning and the individual mind. The principles of Vygotskian constructivism that CHAT provides have offered logical and comprehensive explanations about how individuals construct knowledge through social interaction, making knowledge subjective, developmental, and context-specific.

Integration of the constructivist principles into EFL teaching approaches also indicates the need for raising teacher awareness on socio-cultural influences on developing critical thinking. These key ideas have been discussed through global and context-specific research findings in this chapter. Hence, the discussion raises awareness about the current positive and negative current contextual understandings in relation to integrating CHAT into EFL teaching approaches, and developing critical thinking.

Chapter Four: Research Methodology

4.1. Introduction to chapter four: research questions and the overall research design

The main research question of this study asks,

What are the ways that EFL teaching, within the perspectives of CHAT, can develop critical thinking in learners at university level in the context of Oman?

In order to seek the understandings that are embedded within the main research question, 6 sub-research questions were formed (details on pp.11-13). Therefore, in light of the main idea, the sub-research questions ask,

1. Why is developing critical thinking in Omani students important?
2. In what ways/whether the current EFL teaching practices contribute to develop critical thinking in learners?
3. In what ways can the constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in EFL learners?
4. What are the out-of-classroom contextual elements that can contribute to developing critical thinking in EFL learners?
5. What are, if any, classroom/social factors that can be barriers to developing critical thinking in learners?
6. What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching?

Hence, the analysis of the participant views gained through these 6 sub-questions will form the answers to the main research questions. Consequently, the main research question will be answered through the following aspects:

- i. What is the teacher role in the constructivist EFL classroom in developing critical thinking?
- ii. What comprises the learner role in the constructivist EFL classroom in developing critical thinking in students?
- iii. What are the effective teaching/learning practices that contribute to developing critical thinking in learners in EFL education?

The six sub-research questions (p.20 above) focus on context-specific academic practices and sociocultural aspects, making it important to the views of the relevant

stakeholders. They also exemplify how choosing a research methodology that facilitates access to the others' thoughts is central to the success of the research. This notion has been supported by Opie (2010) who writes that "...it is the match between methodology and the procedures, and the research focus and the questions that the credibility of any findings, conclusions, and claims depends" (p.17). Correspondingly, the current study embraces a qualitative research approach to accomplish its goals as qualitative approaches facilitate seeking in-depth understanding of phenomena through individual views (Denzin & Lincoln, 1998). This study has chosen a case study method, seeking the participant views through semi-structured interviews. There were 2 sets of participants, including student and teacher interviewees (including teacher-administrators).

My research process began by identifying the research problem and the aim of the research. Then, I proceeded to reviewing the literature, and choosing the most appropriate research method/s to find the research participants' insight in relation to themes that are raised through the research questions. The overall research design contributes to making this study 'trustworthy' (Guba & Lincoln, 2000) by using two methods of triangulation. Data triangulation at the initial level included, corroborating teacher views through student views and vice versa. The second method of triangulation included, substantiating participant views through the 4 documents (p.30 of this research) that describe the academic programs and courses of the LC.

Another aspect that helped to maintain and enhance the rigor of the research conduct was the pilot study. To add to that, the trustworthiness of this research is further enhanced by revealing the researcher positionality, minimising the effects of researcher bias arising due to the researcher's perspectives and constant presence within the research context. Collectively, these steps contribute to ensuring the trustworthiness of this research, making the research process transparent to the others/any researchers interested in reviewing, contributing to the rigor of the research. In sum, this chapter discusses the theoretical framework of the research methodology of this research, including the research design, research paradigm and the research method, sampling of participants and relevant issues, the data collection tools, triangulating techniques used, the processes of interpreting data, and the steps taken to minimize the ethical issues, arising from research conduct.

4.2. The chosen research paradigm: qualitative paradigm

The view to the nature of knowledge lends to the paradigm differences as Polkinghorne (1989, cited in Lincoln & Guba, 2000, p.176), discusses:

The idea that the objective realm is independent of the knower's subjective experiences of it can be found in Descartes's dual substance theory, with its distinction between the objective and subjective realms. ... in the splitting of reality into subject and object realms, what can be known "objectively" is only the objective realm. True knowledge is limited to the objects and the relationships between them that exist in the realm of time and space. Human consciousness, which is subjective, is not accessible to science, and thus not truly knowable.

Polkinghorne (1989) explains the birth of the two paradigms of qualitative and quantitative (positivists' and interpretivists'). He also implies that human thought may be inaccessible to science, where scientific calculations are used to quantify knowledge and that qualitative approaches and techniques have been formed for the purpose of interpreting human thought and reality. Therefore, since this study attempts to explore and interpret human views, in order to answer its research questions; this study is aptly positioned within the qualitative paradigm.

A paradigm is defined by the nature of its beliefs. A paradigm's beliefs are depicted by its ontology and epistemology. Guba (1990) defines research paradigms through the concepts of 'ontology' (what is reality?), 'epistemology' (how do you know something?), and 'methodology' (how do you go about finding it out?). Thus, the answers to these questions can create a holistic view of the paradigm. Knowing a paradigm's ontology and epistemology is the key to understanding how knowledge is seen and one's relation to that knowledge. This brief discussion indicates the significance of being aware of what reality is and what can be known since these assumptions affect one's approach to research conduct.

Epistemology is concerned with the nature and forms of knowledge (Cohen et al., 2007, p.7), implying how epistemology relates to the relationship between the knower and what can be known (Denzin & Lincoln, 2011). Therefore, epistemology answers the question 'how one can know the reality' or if knowledge exists; how can I know that knowledge? Hence, Sikes (2010) offers a meaningful explanation indicating that epistemology reflects the ultimate contribution of research which is informing of the practice and contributing to the

development of the field. Epistemology reflects the kind of knowledge the research creates, and its ‘validity’ (Crotty, 1998).

Consequently, epistemology is linked to research methodology because as the theory of knowledge is informed by the epistemology of the paradigm; epistemology is embedded in the theoretical perspectives of the research which ground the methodological choices.

Accordingly, the methodological choices I have made in my study share the stance of my choice of paradigm, which is the interpretivists’ stance of multiple realities. Due to the fact that epistemology addresses who the knower can be, what can be known, and the relationship between knowing and being, the relationship between epistemology and ontology emerge ‘linked’ (Guba & Lincoln, 1998).

Ontology, “the study of being” (Crotty, 1998, p.10) asks ‘what is my reality in the sense of what exists or be?’ Therefore, interpretivists’ reality relates to the nature of the relationship between the individual and what can be known. The concept of ontology explains the nature of existence, informing the kind of reality the research embraces. For instance, construction of meaning leads to constructing of a meaningful reality, reflecting how the epistemological and ontological stances merge (Crotty, 1998). Accordingly, researcher stance regarding the nature of reality is reflected through the interpretations of the research. This is a crucial stage where researcher identifies own stance in relation to how things work and how things are. Hence, I too was able to identify my stance towards reality by reflecting on the two aspects of how things work and how they are. The interpretivists’ stance implies the subjective and context-bound realities that can be multiple as opposed to a singular reality.

The notion of multiple realities constructed by individuals led me to choose semi-structured interviews in order to gain insight into the others’ subjective realities. My choice in paradigm selection is further supported by the notion that interpretive approaches embrace “...culturally derived and historically situated interpretations of the social world” (Crotty, 1998 p. 67) because individual interpretations (of participants and researcher) carry sociocultural and political phenomena diluted within them for researcher interpretation. Hence, choosing the interpretivists’ paradigm is an investment for this study.

Interpreting individual views is strongly linked to the concept of *verstehen* or ‘understanding’ in the social sciences as Patton (2002) writes. He defined *verstehen* as enhanced, deeper understanding of the others’, explaining that it intertwines the interpreter

reality with the participant reality. The emerging understanding is that the interpretation of the others' views is a great responsibility that researchers have in deciding whose voice is represented to what degree, with connotations of ethical implications.

These significant principles guide a researcher to see the relationship between the knowledge and knower. Framing what reality is, these principles have enabled me to decide on 'how to go about finding knowledge' as methodologies of the research. These principles contribute to the understanding that the epistemology, ontology, and methodologies of the paradigm are indeed linked.

The paradigmatic beliefs (that the epistemology and ontology emanate) are translated into the principles of the methodologies which as Denzin & Lincoln (2011) highlight, focus on the 'lived experiences' of humans. This view to human experience makes qualitative research benefit from human interaction (between the research participants and the researcher) and their language, representing socio-cultural and political beliefs. The implication is that the view to the others' inner thoughts is "...filtered through the lenses of language, gender, social class, race, and ethnicity" (Denzin & Lincoln, 2011, p.6) as both the researcher and participant views are context-bound. These understandings made me aware of the need to be context-sensitive as a qualitative researcher who is required to assume the roles of the researcher, interviewer, and interpreter.

I became aware that the data collection tools such as interviews and observation methods function better when they are conducted in the natural environments where humans carry out those activities. The implication is that leaning towards naturalistic approaches to access a close representation of the others' reality is a feature of qualitative approaches. Similarly, data interpretation is a co-construction between the participant reality and researcher interpretation because researcher beliefs have a way of seeping into data interpretations. Therefore, acknowledging researcher stance is an appropriate action to reduce bias as I have acknowledged in this research.

Furthermore, qualitative research design can be flexible compared to the rigidity of quantitative research strategies that do not facilitate reconstruction/revising (such as questionnaires/surveys). Comparatively, qualitative researchers have the advantage of revisiting their data collecting tools and data, since the qualitative data collection methods offer flexibility. My study benefited from my own re-visits, because I started with the process

of interviewing to interpreting data which enabled me to re-visit/re-adjust phenomena as required.

Characteristically, qualitative research prioritises data as the theoretical framework of the research can emerge from data. Similarly, qualitative researchers get the opportunity to work with ‘thick’ descriptions as acquisition of data can be in large quantities, collecting over long periods of time. Consequently, my study also exemplifies how qualitative analyses become descriptive and interpretive.

Another distinctive feature of qualitative research is that data collection and data analysis can proceed together. Researchers can start the interpreting processes, following data collection. On the other hand, in qualitative research, ‘interpreting’ may start involuntarily within the interviewing process itself because the interviewer participates in the knowledge building process as Charmaz (2000) notes. My reflections on the interview process shows that I have been interpreting student interviewee data, since I have been focusing on ensuring their construction of knowledge through ‘planned prompting’, ‘agreeing’, and by ‘listening empathetically’.

While qualitative researchers may not analyse the paradigmatic aspects to identify limitations in general, as Atieno (2009) asserts, ‘ambiguities’ of language can often arise in qualitative analyses. Discussing how the word ‘red’ can denote the two meanings of colour red and the socialist red, Atieno points out that for instance, “the red flag” (p.17) in a qualitative analysis can be ambiguous to some readers. It highlights the need for qualitative researchers to be aware of potential drawbacks and use effective measures to avoid/compensate for them. Learning about how the epistemology and ontology guide the research methodology clarifies how to choose the methods, proving also the rationale for choosing them.

4.3. Research methodology: a case study

The methodology of research, in Denzin & Lincoln’s (2011) view, is mainly about ‘how we can know the world or “gain knowledge of it” (p.12). Shaped by the understandings of the nature of knowledge (epistemology) and the reality of the world (ontology), the choices of methodology warrant the methods of knowing the world. As methods and techniques emerge in relation to ‘how’, the methodology provides the theoretical standpoint that connects the research problem and the method(s) to seek the reality that the researcher believes in.

Methodology is the strategy or plan of action which lies behind the researcher's choice and the specific methods (Crotty, 1998). As choices are made on the bases of why, what, from where, when, and how data is collected and analysed; the need to be informed about theoretical perspectives of qualitative paradigm can take a back seat. However, ensuring that knowledge of the methods does not take a back seat, and in light of the view that the nature of reality is individual, subjective, and multiple; this study has chosen a case study method, using the technique of semi-structured interviewing to gain an in-depth look into the others' realities.

As Denzin & Lincoln (2014) write, "...each practice makes the world visible in a different way" (p.7). Out of the diverse methods of research, the case study method has the capacity to bring advantages to both qualitative and quantitative research. A case study is defined as "...an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 1994, p.13). As Yin's definition highlights, case studies yield many advantages that this study can benefit from. To begin with, a case can be a phenomenon, situation, or an event examined by an investigator, and the view that a 'case' is looked at and examined to find solutions decides the investigation. Viewing the others' actions that are situated in their own socio-cultural worlds and trying to interpret them through the interpreter's own lenses can create dilemmas. Therefore, as a case study facilitates studying the others in their real-life contexts, seeking and interpreting the others' views in their natural habitat is a genuine advantage for the qualitative researcher.

A case study allows the exploration of the relevant issues in more depth (Yin, 2003), facilitating the in-depth interpretation of large volumes of data involving complex contextual issues. They are also particularly suited to answering, 'how and why' questions (Yin, 2011). Therefore, a case study approach is appropriate for this study, since it asks 'how' (the teaching practices can contribute to foster critical thinking in learners) and 'why' (developing critical thinking in learners is important), while trying to find answers through the others' beliefs, sociocultural traditions, and academic practices.

Case studies fall into three major categories based on the outcomes they yield (Yin, 2014). Since these categories facilitate a researcher's decision-making process, choosing a case study approach can be compelling. The three categories include,

- (a) Exploratory case studies which contribute to forming research questions. In particular, exploratory case studies are used to explore situations where the case has no single set of outcomes.
- (b) Descriptive case studies which influence theory building through analysis of comprehensive descriptions. Their strength lies in describing phenomena in their real-life contexts, which they occur.
- (c) Explanatory case studies influence to promoting theory testing as the ‘how and why’ questions examine relations between theoretical stances. Seeking to answer a question to explain the causal link in real-life interventions, takes into consideration contextual, social explanations.

These categories show that they have the capacity to explore, describe, and explain. Thus, in order to ask and answer the questions of ‘how and why’ by exploring, describing, and explaining the others’ views; I have chosen to follow an explanatory case study method.

However, a key argument is that qualitative case studies have issues about generalizing the outcomes of a study. Responding to this issue, Yin (2014) asserts that analytic generalization is more efficient than statistical generalization in qualitative case studies. Yin’s justification is that a chosen sample cannot always represent the larger population as there are inconsistencies such as socio-economic, political, or demographic among social groups. Therefore, the key to analytic generalization is constructing a valid and logically constructed argument able to withstand challenges.

An analytic argument needs to be built in relation to the reviewed literature, enabling comparison and supporting/challenging through the findings of the study. In light of that, the current research remains hopeful that it would be able to demonstrate how the main argument of the research, i.e. critical thinking needs to be fostered in Omani students through EFL teaching, can be theoretically advanced to situations other than the chosen sample. For instance, Vaughan’s (1996) single case study generalizes its findings as analytic generalizations, rather than statistical generalizations (cited in Yin, 2014, p.31). Vaughan’s study centres the tragedy of the loss of space shuttle ‘Challenger’ in 1986 of which the official conclusion was ruled as human error. Vaughn’s argument is that ‘mistakes happen’, and that the society understands this because the possibility of mistakes occurring in general, is ‘built into the nature of professions, organizations, cultures, structures’.

Vaughan adds that professional behaviour can be deviated and transformed into even ‘unacknowledged’ behaviours, challenging the decision-making under different types of institutional pressures. Thus, Yin (2014) points out how Vaughan tries to generalize her findings, emphasising that even research shows distortions that result from different ways of doing research (different domains/technological terms etc.). Both Vaughan and Yin seem to argue for analytic generalisation of the findings of qualitative studies.

The strengths of case studies are many. The ability to deal with multiple sources of evidence, enabling the convergence of data in a ‘triangulating manner’ is a unique advantage to case study users (Yin, 2014). This shows that case studies can maintain different sources of evidence, linking and triangulating simultaneously. The major sources can comprise interviews, observation, and document analysis, archival records, and physical artefacts (Yin, 2014), enabling researchers to ‘listen, observe, and examine’ when seeking explanations. Researchers can maximise the outcomes of their studies by using the varied sources of evidence in designing research. These reasons have influenced the use of semi-structured interviewing in my research, contributing to triangulating data (as described on p.101) and maximising the research outcomes.

On the other hand, there can also be disadvantages of case study approaches. The strength of ‘why and how’ questions can also indicate a broader sense of investigation rather than a specific range of phenomena or data. Yin’s (2014) view is that revisiting theoretical stances and conducting pilot studies will help to identify the relevant phenomena and narrow down the broader scopes that initially presented. Another resolution is to design a research protocol, reflecting the strategic plan of the preliminary research design which allows the researcher to integrate, revisit and revise research characteristics that are unique to individual projects (Yin, 2014, p.102). Consequently, since a research protocol can raise awareness of ‘time, depth, and scope’, having a plan can lessen the impacts of large volumes of data and data collection (that can include time/labour issues).

Influenced by these characteristics, the case study design of my research underpins triangulating strategies that can maximise research outcomes. For instance, the two sets of research participants (teachers and students) corroborate the data provided by each other. Moreover, the pilot study that this research includes, helps to establish the validity, enhancing

the trustworthiness of the research. Thus, following Yin (2011), the design of my case study includes,

- (a) the main research question asking how and why,
- (b) the six sub-questions emanating from the main research theme, asking how and why,
- (c) the unit of analysis as participants from a single institute of SQU which is the case,
- (d) the logic that is linking data to what the research is questioning, and
- (e) the criteria for interpreting the research findings.

The questions that ask how and why help to focus on the goals of the study. Internal validity is managed by making the relationships between the topic, participants, and the context clear. External validity is established by explaining the elements, situations, and phenomena clearly to the readers so that they can be applied to other situations expecting similar results (Yin, 2011). This shows that a case study, as a research strategy, is an ‘all encompassing’ method.

4.4. Data collection tool: semi-structured interviews

Interpretive approaches characteristically seek culturally derived interpretations of the social worlds. Therefore, interviews are important interpretivist data collection tools that help to gain access to the others’ understandings. Since making meaning is an essential part of being human, and humans make meanings through social interactions (Vygotsky, 1978); interviews offer the opportunity to interpret and create meanings. Qualitative interviews are ‘conversations’ (Patton, 1980) but as Kvale (1996) states, they are ‘conversations with purposes’. These views suggest that interviews are mainly informal and friendly conversations where social hierarchies can be made to take a back seat. The characteristics of interviews (discussed in detail below) show that they compel qualitative researchers to choose interviewing as a data collection tool.

Characteristically, people can be questioned in many ways (formally/informally), and interviewing is a main method that includes individual, group, telephone, or video-conferencing interviews. Creswell (2005) asserts that the two major types of interviews are structured interviews (using pre-set questions) and unstructured interviews (allowing free-flow of conversation). I opted for individualistic semi-structured interviews for two important reasons. Firstly, the quality of semi-structuredness allows the researcher the freedom to explore participant views further and in depth where necessary. Secondly, as semi-structured

interviews consist of open-ended questions; they allow ‘free expression of experience’, encouraging interviewees to clarify their own points of view which can discourage any preconceived attitudes (if any) in interviewees from previous findings (Creswell, 2005).

Therefore, my prepared list of discussion themes (for the semi-structured interviews) included ‘open-ended questions’ that allowed time and scope for interviewees to relate to their life (academic/personal) experiences through personal narratives. Hence, as Kvale (1988) discusses, semi-structured interviews facilitate qualitative interviewers as they prefer to listen, interpret, empathise, sum up relevant data, and identify key patterns/themes for data analysis while conducting the interviews. In Kvale’s view, this is also a kind of ‘co-authoring’, and Charmaz (2006) who shares the same view, further explains that interpreting qualitative data is co-constructing of truth because researcher values and beliefs integrate into the reproduction of interpreted data. Clearly, semi-structured interviews encompass the capacity to co-construct knowledge facilitating the qualitative researchers.

Another benefit is that semi-structured interviews allow for flexibility in terms of time and the schedules of the researcher/participants. For me, time between interviews and time as to the length of interviews became equally important. For instance, the interviews needed to be conducted during the university working hours (8 a.m. – 6 p.m.) within the SQU premises, choosing the hours that are compatible according to both the interviewer and interviewee timetables. Therefore, after consulting student and teacher participants’ individual timetables, I had the privilege of scheduling; 1 pilot interview, 11 teacher interviews, and 10 student interviews within the period of 3 months that the LCRC (language centre research committee) granted for the first set of (22) interviews. The estimated time/periods proved appropriate because the actual duration of the interviews did not far exceed the anticipated timings. I estimated; ‘30-45 minutes’ for interview 1 and ‘45 minutes-1 hour’ for interview 2.

Following Yin’s (2014) guidelines, I created an interview protocol. An interview protocol is a guide to conduct the interview well. My interview guide outlined (a) the main research question and the 6 sub-research questions, raising participants’ awareness of the key themes, (b) the ‘follow-up’ questions as probing questions to enhance the participant descriptions, revealing the complex nature of their own worlds, and (c) the themes where ‘planned prompting’ was relevant. Since the interview plan included relevant and important details for conducting the interviews, I gained the confidence I needed as the only

interviewer. However, as the interview guide did not demand a rigid adherence to the order of questions and themes, I was able to allow flexibility for the interviewer and interviewee. For instance, I managed to ask questions that enhance participant responses or offer long explanations which contributed to enhance the data collection process.

The interview process consisted of two separate interviews. The first interview centred the concept of critical thinking and its development in learners. The second interview focused on finding out the ways that the principles of CHAT can be integrated into EFL teaching, contributing to developing critical thinking in learners. I was also fortunate with participant availability because the teachers and students who participated in the first interview agreed to take part in the second interview. There was a considerable time lag between the first and second interviews, but as I recapped the key ideas of each participant's first interview recording/transcription at the beginning of the second interview; listening to their own discussions helped them to re-acquaint with the key themes/own views, lessening any anxiety they felt.

My interview technique included the 'main, follow up, and probing' questions that Yin (1994) recommends for qualitative interviews. The main question/s focused on the substance of the research problem, spanning the areas that the six sub-research questions probe into. The themes included: (1) the importance of critical thinking, (2) whether/how the concept is addressed in EFL teaching, (3) contributions of constructivist approaches, grounding the principles of CHAT, (4) out of classroom/social elements, affecting the development of the concept, (5) classroom/social elements that can play hindering effects, (6) context-friendly teaching/learning practices that promote critical thinking in Omani learners. These themes (from the 6 sub-research questions) helped me to stay on target.

On the same topic of interview questions, Creswell (2014) emphasises the need to follow the main interview questions by using sub-questions. Thus, the main questions were designed to elicit individual experiences and understandings, using terms such as "can you tell/describe ..." (Leech, 2002). The sub-questions focused on further clarifications, exploring issues in depth and detail. These descriptions provided the rich details that qualitative researchers seek. Similarly, summarizing a lengthy discussion/an interviewee account during the interview, based on the notes I made, was another technique that enhanced the interview conduct. It made me aware of the content, helping me to notice where

subsequent questions are needed. Moreover, as Creswell (2014) discusses, summarising helped to interpret meanings, facilitating the interviewee by clarifying his/her own discussion.

Location of the interview was carefully thought out for the reasons of convenience and minimising of power relations. Accordingly, the pilot interview was conducted at a pre-booked consultation room at the LC (within the university premises), showing that the interview venue was neither a teacher's office nor a classroom. A second noteworthy point for choosing the LC as the interview venue was because it has an adjacent car park open for both teachers' and students'. A small benefit like a spacious car park can contribute to reducing stress and the social distance between teachers and students. This neutral location helped to create an environment that is as stress-free as possible for the interviewee.

I made an effort to neutralize/lessen the student-teacher power relations by paying attention to the socio-cultural distances (Hofstede & Minkov, 2012). As Al-Issa (2012) writes, Omani students are well-attuned to their sociocultural hierarchies and power relationships which may influence them to respond to teacher questions out of obligation (and mechanically) rather than with the motivation to learn/raise their own voices. Another dimension to interviewer-interviewee power relations arises from interviewer having more knowledge about the themes/content. This asymmetry of power can often unknowingly lead to one-directional interviews with interviewer ruling the interview (Kvale, 2006). This shows that neutralising interviewer-interviewee power relations is necessary not only as an ethical stance but also for practical reasons.

Characteristically, semi-structured interviews that are 'conversations with a purpose' (Kvale, 2006) need to be well-planned to elicit the relevant information regarding the purpose/s of the interview. Accordingly, I followed Leech's (2002) idea of a one-minute summary of my research purpose as an effective ice-breaker to alleviate any anxiety in the interviewee. I was also mindful about (a) the greetings, (b) refreshments, (c) off-the-topic conversations, (d) re-emphasising the confidentiality of data, and (e) informing that interviews are only voice-recorded, making the interview-transcript available later, contributing to reduce any stress. Moreover, (f) I briefly mentioned the topic of my research and indicated that the interviewee's knowledge of the context is important and that his/her

experiences and opinions matter to the success of this research as was the truth. I felt that this declaration contributed to building trust between the interviewee and interviewer.

The interview commenced with the simpler questions, leading to the complex questions that needed ‘prompting’ with student participants, since teacher participants did not need prompting. Prompting (the interviewee) indicates the extent that an interviewee should be helped to understand a certain concept, which is a crucial element to conducting an unbiased interview. However, prompting can be used to gain advantages because when/if researchers/interviewers have hidden agendas, they may prompt interviewees in ways that compel them to express what they may not want to (Kvale, 2006). Hence, prompting should be given the due consideration to avoid manipulation (and bias) of the interviewees and knowledge creation. As Leech (2002) writes, focusing on and anticipating the ‘planned/unplanned’ prompts can be strengths, as lack of prompting can lead to lack of depth and richness in responses. Therefore, I focused on how to prompt my student participants prior to the interviews. I included planned prompts about the (a) key concepts of critical thinking and (b) constructivist teaching. I opted for planned prompts because they are formal and carefully thought after to avoid manipulating the interviewee and facilitate knowledge creation, evaluating the extent that the key concepts should be elaborated.

There are many ways to conduct interviews. For instance, Bellah et al.’s (1985) discussion of their work on ‘individualism and commitment in American life’ shows how using Socratic dialogue enlivens the interview procedure. Bellah et al.’s triumph included uncovering assumptions and the interviews progressing in an ‘active’ manner. I also had made mental notes on the importance of encouraging participant descriptions, freedom of expression, and adhering to the flexible interview plan. Consequently, my mental plan made me realise the extent I need to interact, but also be subtle in adhering to the interview plan. These issues have influenced me to embrace the qualities that Yin (2014) sums up for a qualitative interviewer to have. They have made me aware of the need to become an interviewer that embraces the following precepts:

- a. asking good questions that are meaningful and interpreting the answers fairly,
- b. listening fairly paying attention to what is being said,
- c. adapting to the flow so that interviewer can respond to new situations developing,
- d. grasping the discussed issues firmly, and

- e. avoiding bias by being sensitive and staying open-minded about contrasting evidence that can develop within the interviews.

However, even with careful planning, I still experienced some of the major disadvantages that the qualitative research experts mention (Yin, 2011). For instance, managing the time was challenging initially because I noticed that participants were interested in sharing their life experiences as examples. This made me realise how sensitive/attuned one needs to be towards the participants' discussions to intervene even in the subtlest manner. Intervening a conversation is not an easy task in a context where social politeness is a deciding factor within social participation. Therefore, I soon adopted the resolution of politely requesting for 1 example, instead of allowing participants plenty of time and space to continue with several examples. Consequently, this strategy helped me to conclude my interviews within the scheduled time. Later, I realised that this factor escaped me during the pilot interview because the student interviewee in my pilot interview was not a talkative student.

4.5. Sampling

Sampling is an important aspect of research design. It fulfils the task of representing a larger world of population through a small number of chosen participants (Miles & Huberman, 1994). The implication is that representing a phenomenon (phenomena), situation, or an event through a smaller size representation is often a characteristic of qualitative sampling. Moreover, the rich details obtained by reaching the 'depth' of human explanations matter more for the qualitative researchers than the number of participants because they seek to represent the larger universe through a smaller sample, which purposeful sampling achieves ideally as Creswell (2005) mentions.

One of the goals of my research was to choose participants that can unravel the 'social settings that comprise even more sub-settings' (Miles & Huberman, 1994). Therefore, using a purposive sampling pattern seemed more fitting to achieve this goal, because under this technique, the different sub-settings of colleges and departments of SQU can be represented. My task of choosing student participants was uncomplicated because the LC provides a general EFL (foundation) course and credit courses as ESP courses (for the nine colleges of science, medicine, engineering, arts, law, commerce & political science, nursing, social

sciences & humanities). Subsequently, I decided to choose 2 students from 3 different foundation (FPEL) courses and 2 students from 3 different credit (CELP) courses.

In choosing student participants, I directly approached 6 program-coordinators (3 foundation courses and 3 credit courses), avoiding emails across department, programs, and teachers. After describing my research plan (showing also a copy of LC's research permission letter), I requested them to name 2 students randomly from their programs. Consequently, 12 students were chosen without gender or ethnic discrimination. The current student population is primarily Omani, except for a fewer number of Arabic/Muslim students from other regions and the children of some SQU expatriate staff. Introducing myself as the researcher, I invited these students to take part in my research, emailing them the participant information sheets (appendix 2). Out of the 12, only 11 students accepted my invitation. I chose the first student who responded to me (via email), as the pilot study participant.

In order to choose the teacher participants, I consulted the staff allocation sheet which is emailed to faculty each semester by the LC's deputy director for academic programs. After choosing 2 teachers from both foundation and credit courses, I approached them personally to explain my request. Once I had chosen a random and purposeful sample, I emailed them an invitation to participate in my research and the participant information sheet. 12 out of 12 teachers that I had chosen, expressed their willingness to take part in my research. However, 1 teacher re-scheduled her first interview-appointment several times before she decided to withdraw. This experience confirmed how participant selection process comprises diverse 'boundary' issues such as bias, time limits, communication access, and means (Miles & Huberman, 1994). In participant selection, I managed to approach teachers from both genders though it was not on my agenda to balance participant gender. I included both expatriate and local teachers from foundation and credit level teaching. The teacher group also included two teachers who served as administrative members at the LC.

The process of participant selection shows that my knowledge of my colleagues helped to avoid the process of "screening" (Yin, 2011, p.95). Screening can become a lengthy process, where obtaining and examining teacher credentials can consume time and energy. Moreover, based on Yin's (2011) advice that testing of opposing views contributes to the success of research conclusions, I also managed to include teachers that I believed to be

sceptical about my research interest, evincing the advantage of having knowledge of the participants.

In sum, the discussion on sampling indicates that the sample that I had deliberately chosen shows promise of delivering rich data, how the success and trustworthiness of a research depends on choosing the right group/s of research participants, and the importance of sampling for qualitative researchers, as they are keen on exploring the meanings of phenomena in depth.

The following table contains a list of teacher and student participants, identified by their pseudonyms. While a participant profile demonstrates the relevance, importance of their contributions, such a profile can also discredit the steps taken by the researcher to protect participant anonymity. Therefore, as a step towards protecting even the anonymised identity, neither the teachers’ nor students’ educational/ professional qualifications, gender, or the nationalities are displayed in the list below. A detailed discussion of the special measures taken to protect participant and data anonymity are further discussed under the section of ethical aspects (pp.109-112) of this study.

Table 3 The list of teacher and student participants under their pseudonyms

	Teacher participants	Student participants
1	Ahmed	Ali
2	Ayna	Aysha
3	Damien	Bishara
4	Kathya	Hasanat
5	Kyle	Khadija
6	Malika	Khalil
7	Norla	Mohanned
8	Olya	Ricardo
9	Toby	Shana
10	Valentina	Zahra
11	Zakia	

4.6. Designing case studies: maintaining the trustworthiness of the research

The design of a case study can enhance the quality of research and its findings. In order to maximise and enrich the research outcomes, specific elements should be incorporated. Guba & Lincoln (1994) identify four aspects that act as the criteria for judging the quality of a research. They emphasise that qualitative research approaches need to lean towards maintaining and building up the trustworthiness of the work, because qualitative research yields less objectivity and more subjective interpretations (Morrow, 2005). Hence, as the nature of subjectivity implies a need for trustworthiness, Guba & Lincoln (1994) suggest that qualitative research should focus on achieving credibility, validity, reliability, and confirmability (p.114). Therefore, the discussion below presents the key characteristics of these values before presenting the steps that I have taken to maintain the trustworthiness of my research.

4.6.1. Credibility

Credibility relates to the 'internal consistency' (Morrow, 2005) or the confidence that the research emits in relation to how effectively the data and processes of analyses address the focus of the research. Hence, Yin (2014), Cruzes & Santif (2011), Morrow (2005), Shenton (2004), and Patton (2002) discuss effective strategies to achieve the trustworthiness of research. They prioritise reducing bias because by nature, the data collection methods and analyses are influenced by researcher as a participant within the process. Considering that researcher presence can contribute to question whose truth is revealed in the research, revealing a thorough account of research steps and descriptions can minimize bias. Another strategy is to involve peer-reviewers in the research. For instance, a second opinion by a peer-reviewer on a crucial area, such as code selection can contribute to the credibility of data, enhancing the trustworthiness of research (Patton, 2002). Thirdly, triangulation of data brings the advantage of ensuring that the findings are credible (Yin, 2014). To add to that, revealing researcher positionality is admitting the unavoidable presence of the researcher and giving an account of the research steps, strategies, and processes to the other researchers/the others (Morrow, 2005). Therefore, revealing researcher positionality contributes to enhance the credibility of a research.

4.6.2. Dependability

A goal of quantitative research is to ensure that their work can be repeated within the same context, using the same method/s and participants to achieve the same result (Patton, 2002). As qualitative research acknowledges that truth is neither out there nor can it be represented in the same way, providing a full account of the research approaches can contribute to the dependability of the research. Therefore, qualitative researchers describe their data gathering processes in minute detail, describing how and why each of the research steps was carried out. Hence, a researcher's reflective stance of the overall process can enhance the dependability of the research.

4.6.3. Transferability

Transferability is the extent to which the findings can be transferred to other settings or groups as generalizability. Qualitative research as case studies focus on theoretical generalisation rather than statistical generalization (Yin, 2014). Therefore, in-depth discussions about the research context, processes, and participants can enable generalizability (Yin, 2014; Cruzes & Santif, 2011; Morrow, 2005). The implication is that a qualitative researcher needs to provide explanations of the situations, elements, and phenomena that the research involves, in a responsible way in order for the reader to generalise the theoretical aspects. According to Morrow (2005), one of the most effective strategies is to provide information about the researcher by making the researcher an instrument. Finally, as Lincoln & Guba (1998) highlight, the aspect of transferability needs to emerge from within the research, and it is the researcher responsibility to ensure that sufficient amounts of phenomena, elements, and situations are included in the research for the reader to find them transferable to other situations.

4.6.4. Confirmability

Confirmability of a research is more concerned with the way that the data is gathered, coded, and organized for analysis. This means, confirmability should indicate whether other researchers or experts would agree with the way those aspects are carried out. An effective strategy that promotes confirmability is the researcher effort as an aspect of rigor. Researchers need to reveal that the findings of the research have emerged from the actual experiences of the research participants rather than according to the researcher preferences (Shenton, 2004). In other words, a researcher account of a detailed description of research

methodology can facilitate a closer look at the data-oriented and theory-oriented steps and choices of the research (Shenton, 2004). Clearly, conducting pilot studies and their analyses can contribute to ensuring confirmability.

In sum, these brief discussions of the four aspects have shed light on maintaining the trustworthiness in qualitative research by using specific strategies. Though some of the afore-discussed strategies may over-lap, the overall outcome contributes to ensuring a trustworthy research. Therefore, in light of the four aspects of credibility, validity, reliability, and confirmability, this study has incorporated some key steps to promote the trustworthiness of the research. By doing so, the research hopes to minimise the criteria that can decrease the quality of the research. These steps include:

- a. peer-reviewing. I chose Dr. Norma Hines⁵ (with her permission) who was my officemate at the LC, SQU, as my peer-reviewer. I showed her a map of the chosen codes risen from my topic and the six sub-research questions. As this process took place before the pilot study, the analysis of pilot study was conducted under the six themes that were peer-reviewed (although the outcome of pilot study influenced change in the sub-research questions).
- b. participant reviewing. The process of participant reviewing included emailing the transcribed version of the own interview to the respective interviewers. Then, according to the interviewee's choice of time, each interviewee and I reviewed the interview script. This included asking and answering further questions. The "post-interview" references that are indicated within the analyses (chapter 5) evince this aspect.
- c. an account of researcher positionality. This was a necessary step, especially as the researcher is 'an insider' (Shenton, 2004). Therefore, as the perceptions of the researcher are unavoidable within every stage of the research, researcher reflexivity is considered an integral part of the steps of data collection, analysis, and interpretation. The impacts of researcher positionality have been discussed with the hope of reducing biases (pp.16-19).
- d. an evaluation of the possible shortcomings of the research have been included as limitations in relation to the research approaches and their potential effects (pp.178).

⁵ She preferred not to be anonymised as a peer-reviewer.

- e. providing detailed descriptions of data collection and analytical procedures, explaining the procedures and the ethical stances has been a feature of this study. Hence, the study hopes that this account enhances the credibility of research.
- f. triangulation of data. Triangulation occurred at two levels. Firstly, since research participants comprised teachers and students, the analyses of participant views contributed to corroborating their perspectives. Secondly, both teachers' and students' views were substantiated by the important academic documents, such as the FPEL and CELP documents that are introduced/discussed in chapter two under the context of education (pp.22-23).

Triangulation is the process that researchers use to study a single phenomenon from different perspectives (Denzin, 2010). The major purpose of triangulation is to increase the credibility and validity of a study, using various techniques and strategies. Triangulation contributes to strengthen the research design by reducing any problems/deficiencies that can arise when a single method is used. Supporting the need to use triangulation in research, Moran-Ellis et al. (2006) write that the “different dimensions” of the social aspects that qualitative inquiry investigates today (within the complex social worlds) need more than one method for investigating them (p.48).

The four major techniques of triangulation include (a) theoretical, (b) data, (c) investigator, and (d) multi-method triangulation (Denzin, 2010). Theoretical triangulation uses multiple theories/hypotheses to examine a single phenomenon, while data triangulation comprises collecting data at different times, in different settings, or from different individuals (Patton, 2002). Investigator triangulation refers to using more than one researcher/investigator in data collecting and analysis contributing to greater credibility and trustworthiness of the findings (Denzin, 2010). Multi-method or the methodological triangulation indicates the use of a combination of methods to address a research question/s. One of the multi-method strategies is ‘within-method’ triangulation, where at least two different techniques arising from the same paradigm are used. I use the technique of data triangulation as my primary mode of triangulation, involving the two sets of student and teacher participants as described above.

When applying the within-method triangulation techniques, I was careful not to mix the within-method technique with cross-method triangulation, which borrows validation tools

from different paradigms (Denzin, 2010). This means cross-methods offer the advantage of verifying a research's theoretical perspectives, data collection methods, data analysis procedures, or methodologies from different points of view, promoting greater accuracy in interpreting data (Patton, 2002). Despite this advantage, I did not use cross-method because I believe that the truths and beliefs that my participants share with me, which are their own interpretations of their own worlds, cannot be quantified.

These principles of triangulation enable the understanding that it is a unique perspective that helps preserve the aspect of trustworthiness in qualitative research. I was able to choose the effective technique of data triangulation to ensure the validity, credibility, reliability, and trustworthiness of my data and the research. Consequently, I feel that I have been able to enhance the findings of my research, reducing the potential negative effects.

4.6.5. Reflexivity

Reflexivity has been defined as a process that exemplifies self-examination, fundamentally informed by the own thoughts and actions of the researcher (Yin, 2011). Self-examining enables a researcher to reflect on: the research process, researcher stance, and the outcomes, so that revisiting can be done when and where necessary. Charmaz (2006) says that there is a greater need for interpretive researchers to be reflective. She points out that the interpretivists' stance of knowledge is a 'sociocultural construction' and therefore, compels the researcher to be particularly reflective. In her view, reflective researchers can contribute to providing detailed accounts of the co-creations through data collection, interpretation, and findings.

The advantage is that consequently, the researcher becomes conscious of the own impact on research decisions and processes, focusing on the issues related to the trustworthiness of the research process and the findings. In Lincoln & Guba's (2000) view, reflexive practice associates with naturalistic inquiry, making reflexive stance contribute to ethical research practices.

Secondly, reflective stance contributes to minimizing researcher bias about self-beliefs and practices. Minimizing bias over the power relations between the researcher and the researched can enhance the others' perspectives towards research outcomes. For instance, qualitative interviewing can comprise a distance between the power relations of the interviewer and interviewee grounding one's assumptions about the social hierarchies

(Hofstead, 2001). Therefore, being reflective about one's own conduct and following a 'research protocol' (Yin, 2011) can be effective strategies to maintain good research conduct. Hence, my overtly reflective aspects included the four focuses of a reflective practitioner (also previously mentioned under the measures for maintaining the trustworthiness of the research) that Alvesson & Skolberg (2009, p.273) mention. They include,

- i. interaction with empirical material: my plan was to produce detailed accounts of the interviews and documents that were used for corroborating the participant accounts.
- ii. interpretation: my focus was to reveal the underlying meanings that I understand in relation to the relevant sections of data.
- iii. critical interpretation: the role of researcher as the interpreter looks for contextual meanings embedded in the participant responses. In interpreting ideologies, power relations, and social meanings; as a reflective practitioner, I decided to stay true to the meanings of the participants' views.
- iv. reflection on text production and language use: in interpreting the others' views, the others' voices should be represented because otherwise the research can lose its credibility affecting the trustworthiness of the overall research. Hence, the researcher has the opportunity to identify one's own stance, reducing the claims to authority.

Therefore, within the interpretive stages of this study, the researcher has used the term "I", enabling the reader to identify the researcher stance within the micro levels of the descriptions and analysis. The underlying optimism is that it contributes to the acknowledgement of the participant claims, reducing the researcher claims to authority. In many ways, a reflective stance can imply what has occurred when reflecting on the aspects of the research. Therefore, researcher reflections can influence the role of the researcher to emerge as the interviewer/interpreter, exemplifying the measures taken to sustain the rigor and ethical stances, so that the trustworthiness of the research is maintained.

4.6.6. Pilot study

Quantitative research considers pilot studies as a vital part of research while different schools of thought argue about the effectiveness of the contributions of pilot studies to qualitative research. The underlying principle is that since a qualitative sample represents a specific context, the findings related to that context cannot be generalised. On the other hand,

as significant benefits, pilot studies enhance the data collection procedures, tools, and their effectiveness, contributing to ensure the rigor and trustworthiness of qualitative research.

The characteristics of pilot studies highlight their importance in qualitative research. In a general sense, a pilot study is a feasibility study. Baker (1994) points out that pilot studies can be smaller in scale in relation to the planned method or methods. However, the outcomes of pilot studies, whether they are large or small, can influence the methods and the methodologies of any large or a small research (Yin, 2014). This is especially the case in relation to refining data collection plans, the data content, and data collection procedures. Clearly, pilot studies help to identify whether the research instruments serve the function that they are designed for.

Hence, the primary goal of my pilot study (discussed on pp.114-117) was “pre-testing” the data collection instrument of the semi-structured interviews (van Teijlingen & Hundley, 2001, p.1). The other important goals included, evaluating the clarity of the prepared interview questions. The expectation was that the analysis of the pilot study contributes to enhancing the data collection tools, in preparation for the major study. Baker (1994) who agrees with this idea, emphasises that the analysis of a pilot study helps to determine whether the interview questions yield the information that is searched for.

Thirdly, gaining confidence in interviewing skills was also an expected goal of conducting a pilot study. Since I was both the researcher and interviewer, I was interested in strengthening my ability to form comprehensive questions (as the interview progresses) as a novice interviewer (appendix 3, semi-structured questions, p.204). Therefore, conducting a pilot study prepared me to expect and avoid ‘potential practical problems’ (van Teijlingen & Hundley (2001, p.1). Though I include both teacher and student participants in my study, since I had chosen a student as my pilot study participant, I had the opportunity to evaluate the kind of ‘prompting’ student participants need in the main interviews. The discussion shows that conducting a pilot study benefits the researcher explicitly as well as implicitly.

However, pilot studies can also have drawbacks. For instance, contamination of data that can lead to making false predictions can have serious impacts for the main research (van Teijlingen & Hundley, 2001). One of the effective measures that Yin (2014) and Creswell (2014) suggest is reporting the pilot study analysis under a separate chapter to avoid the

integration of pilot study results with the main research results. Following their advice, I discuss the results of the pilot study under a separate chapter, individually.

4.6.7. Data analysis: thematic content analysis (analysing data from semi-structured interviews)

Thematic content analysis is “a method for identifying, analysing, and reporting patterns (themes) within data”, systematically (Braun & Clark, 2006, p.6). A researcher can choose the most relevant and rich data from the large volumes to describe the themes, making thematic analysis essentially, a ‘coding affair’ (Patton, 2002). Braun & Clark (2006) add that it can be a realistic framework for interpreting participants’ subjective, context-embedded, multiples realities as data. Thematic analysis has been used interchangeably with content analysis by many, without an in-depth exploration of the qualities of the method (Vaismoradi, Turunen, & Bondas, 2013). Differentiating between the two methods, Vaismoradi et al. note that content analysis is defined as an approach for systematic coding and categorising greater quantities of textual information in communication, while thematic analysis is known as a qualitative method that identifies, analyses, and reports patterns of themes within data. Thematic analysis has the capacity to embody the epistemologies of the positivist and the interpretivists’ paradigm (although not both at the same time) and it is viable because the epistemological stance of the research is decided at the designing stages of the research (Braun & Clark, 2006). As this shows that the data collection approaches and analysing methods are guided by the research stance, the approach to interpreting data also relates to the paradigmatic stance of the research (Guba & Lincoln, 2011). Therefore, positioned within the qualitative paradigm, my research that centres the paradigmatic stance of interpretivism embraces qualitative thematic analysis, enabling a view to the others’ understandings.

Thematic data analysis is considered important for many reasons. The flexibility of the approach is a key feature because the approach facilitates the (a) analysis of large volumes of the rich data, (b) opportunities to revisit, and (c) readjust codes (Denzin, 2000). Moreover, (d) theoretical flexibility, (e) facilitating the integration into other studies (within the same research), and (f) allowing the freedom for data analysis at the time of data collection (Braun & Clarke, 2006) are key benefits of thematic analysis. This approach also offers the (g) opportunity to learn and practice the skill of coding. Thus, by providing flexibility and choices in data analysis, thematic analysis has made data analysis meaningful for me.

While there are many ways to approach thematic analysis, inductive and deductive approaches are distinctive. An inductive approach develops codes and themes directly through the content of data while a deductive approach focuses on the analysis through existing concepts/ideas to develop codes. Vaismoradi et al. (2013) highlight that the two approaches (inductive and deductive analysis) do not show rigid differences, allowing focus on theoretical coherence and consistency. Leaning towards a deductive approach, I have chosen a theoretical approach to thematic analysis. One of the reasons is that a theoretical approach to data analysis is employed based on the theory of the research, informing the research questions.

Therefore, data is sought within the analysis in relation to pre-conceived themes and interests building towards the researcher’s hypothesis. One of the potential disadvantages is that the rich data with diverse themes may go unnoticed as the researcher can be highly focused on matching data patterns, according to the chosen theoretical themes. However, Vaismoradi et al. (2013) caution that choosing a data analysis method should depend on the researcher’s decision about the appropriateness of the method to answer the specific research questions scientifically, enabling confidence.

With the intention of creating a meaningful interpretation of the data, I followed the six steps that Braun & Clarke (2006) highlight as guidelines for using thematic analysis. They include,

Table 4 The six steps of thematic analysis this study adapted from Braun & Clarke (2006):

The steps of analysis	Description of the step
Familiarising with data:	The best way to know data is by reading not once but several times, using different colour-highlights and annotating. Therefore, the decision to transcribe data by myself was an investment that helped familiarise myself with the data.
Generating initial codes:	With the reading of transcribed data comes knowledge of the content. It enables the researcher to identify categories of data that relate to specific questions/themes. Therefore, going through the data carefully, I was able to identify the key datasets that served as codes for me.
Searching/identifying themes:	The codes contribute to create broader and more general categories of knowledge as potential themes. At this stage,

	<p>merging of data under relevant themes occurs. In my study, codes were clustered at this stage to see their relationship to each other and to the theme.</p>
<p>Reviewing themes</p>	<p>After choosing the themes, it is still important to see if the themes match with the codes and data extracts (and the entire data set) that can generate a thematic map. Therefore, taking Braun & Clarke's (2006) advice that the interview questions are not codes, it was necessary to (a) merge codes under a relevant umbrella term and (b) organize them under sub-themes.</p> <p>In my initial coding under the theme of "the importance" of critical thinking to the Omani students, I included the two codes of (a) definition and (b) the importance of critical thinking to the Omani learners.</p> <p>However, after the second revision to the codes and themes, I felt that it was important to add 2 more codes to make the answer comprehensive. Clearly, the 4 codes refined the answer to the theme of "importance". They are the: (i) definition, (ii) qualities of critical thinking, (iii) importance of developing the habits of thinking, and (iv) importance of the concept to the Omani students.</p> <p>Refining and re-organising of codes contributed to reducing the data to the point of saturation because after identifying the key ideas, the rest of the data can only contribute to lengthening discussions (Glaser, 2002).</p>
<p>Defining and naming themes</p>	<p>Within this phase, researcher develops a detailed analysis of each theme, deciding on the scope and focus of the chosen themes. Therefore, it is important to name the themes that contribute to make the overall thematic map of the research effective. The primary themes deriving from the research included (1) the importance, (2) current teacher practices and developing critical thinking, (3) contribution of constructivist teaching, (4) the out of classroom/contextual aspects promoting CT, (5) classroom or social barriers, and (6) effective teaching/learning practices.</p>
<p>Producing the report</p>	<p>Writing up of the themes is also analytical. In the writing stage, researcher chooses vivid and compelling examples (Vaismoradi et al., 2013) from participants' narratives to create the researcher interpretation of data. The writing stage is not rigid, and it allows</p>

the researcher flexibility in moving from theme to theme as required, indicating that writing is a recursive process.

In sum, the six research questions influenced the data to be theory driven. In reflection, as the codes supported themes and themes contributed to creating a coherent framework, the clusters of themes showed a meaningful analysis.

(Adapted from Braun & Clarke, 2006, p.87)

As steps of research conduct and analysis vary, Braun & Clark's (2006) strategy for an effective thematic analysis points out the potential pitfalls to avoid. The authors highlight that thematic analysis is not just a selection of extracts, but the chosen extracts tell the reader what a particular phrase or word means, in the interpreter's view. In light of that, I have attempted a detailed discussion that reveals my perspectives on the others' views under my thematic analysis. Following Braun & Clark's (2006) emphasis that a weak analysis will not contribute to the connection of themes or the construction of a full picture, I have re-read and revised the analysis as a strategy to avoid a "mismatch between theory and analytic claims" (p.26).

Some of the challenges and issues that I came across during the analysis include (qualitative) paradigm-specific as well as research-specific issues. On the point of using software to analyse data, as an enthusiastic novice using a software to analyse data, I identified the initial codes by clustering and using memos as notes in a systematic way, recognising the key words related to the codes. However, after satisfying my initial curiosity about the functions and effectiveness of the software, I felt the need to return to the task of manual coding and re-reading of the interview transcripts to understand the others' meanings in depth. Since manually selected words, phrases, and quotes (under the relevant codes and themes) showed consistency with the code selection of NVivo; trying out the software was a useful endeavour. Later, through extensive research readings, I came to know that NVivo would be invaluable in large-scaled and mixed method research than a small-scale qualitative research like mine. The upshot is that I learned to operate the software that I may use in conducting a large research.

In transcribing interview recordings (familiarizing myself with the data), I used a verbal representation of the transcriptions without including non-verbal aspects, such as coughing or hesitations as in a "verbatim account" (Braun & Clark, 2006, p.17). I was under the impression that since I conducted the interviews myself, I can re-live the experiences,

recalling the interviewees' gestures/pauses when reading the transcripts 'line by line'. Though the chosen type of transcribing did not present any conflicts or inconsistencies for me, I realised the significance of including those nuances of human expressions, such as coughing, sighing, hesitation signals, repetitions, or exclamations, like 'aha!', because these are meaningful expressions that people use when expressing themselves. Without those, the exact meanings that participants create can be affected (even lost).

4.7. Addressing the ethical issues in research conduct

As Seiber (1993) writes, "ethics has to do with the application of moral principles to prevent harming or wronging the others, to promote the good, to be respectful and to be fair" (cited in Opie 2010, p.25). Ethics relate to both researcher and the researched, but the larger percentage of the responsibility lies with the researcher for protecting the dignity of the researched.

A researcher needs to be well-informed about the ethical procedures embedded in research conduct. In light of that, I invested in the process of educating myself about the ethical procedures. Therefore, Wellington's (2011) suggestion about "the five ways of being unethical" (p.55) was a starting point for me. Secondly, I was able to consult the clear and helpful guidelines of British Educational Research Association (BERA), during the preparation of ethical consent forms and participant information sheets (appendices, 1 and 2) prior to the data collection (BERA, n.d., pp.1-10). My third and constant companion was the University of Sheffield's research ethics guide, refraining me from potential inappropriate research conduct (www.sheffield.ac.uk/ris/other/gov-ethics/ethicspolicy/further-guidance/universityprocedure2, n.d.). My fourth source of ethical guidelines was SQU's Language Centre Research Committee (LCRC) of which I became a member later. These sources have shaped my thinking, enforcing ethical standards throughout the interviewing and research processes. The guidelines (that these sources provide) highlight the need to be an ethical researcher, who is responsible for conducting research in ways that do not harm the research participants mentally or physically and intentionally or unintentionally.

The key themes that underpin BERA's (2011) guidelines include "Person, Knowledge, Democratic values, Quality of educational research, Academic freedom" (pp.1-10). BERA has further enhanced the understanding of each element through sub-points, which have influenced the semi-structured interview procedure and the interview questions.

Regarding the approval of institutional research committees, I gained ethical approval from University of Sheffield (2012) and SQU's Language Centre's Research Committee (LCRC) before the interviewing process. Both institutions granted approval, and the LCRC as the research committee of my work place, granted three months for conducting the interviews within the university premises. I also informed the LCRC about my need for a second set of interviews. The LCRC was contented with its initial approval that was granted for the 1st set of interviews and indicated 'no objections' for the follow-up interviews.

Participants' wellbeing and privacy are prioritized within the data collection and data interpretation stages in this research. Their identities are protected by anonymizing them, beginning from the stage of voice recording within the interviewing process. I invited my participants to choose their preferred pseudonyms, rather than assigning my choice of pseudonyms prior to the recording of the interviews. They were asked to choose pseudonyms beginning with a letter that is different from the letter that their real names begin with. Therefore, the real names of participants do not come to light, neither within the data collection nor interpretation stages, except for the participants who opted not to be anonymised (Ahmed in data analysis, chapter 5; Norma in peer-reviewing, chapter 4).

However, since the research consent forms carry the real names of participants, they are stored in a secure location at home, along with the interview recordings (digital and hard copies), interview transcripts, the consent forms (appendix 1, p.198), the emails/correspondences that took place using my personal gmail account (instead of SQU email), as well as the personal notes that I have made during the interviewing process. My plan is to keep them safely at home for 5 years from the date of research submission, and then destroy them according to the research norm.

Participants were informed of the key aspects of this research, using the participant information sheets (appendix, 2, p.202). The key aspects include: the purpose of the research, research procedure, how the constructed knowledge will be used and disseminated, the importance of their participation, and their right to withdraw at any stage of the research. I

ensured that participants receive information about these important aspects before they participated in the interviews, by emailing the participant information sheet with an acknowledgement request in the emails sent to them. Based on the participants' decision to take part in the semi-structured interviews, I requested their timetables and scheduled interviews at their convenience. I also informed them about the need to sign a consent form which they did before the interview commenced.

Choosing the interview venue was an important issue because social venues assign social values that reflect power relations and distances (Hofstede, 2001). The solution to minimising the impacts of power relations was to reserve one of the teacher-student consultation rooms available at the LC, avoiding a classroom or a teacher's office. It served the purpose of enabling the interviewee to have a sense of independence to express individual understandings rather than feeling obliged to respond to a teacher-question. A second reason for choosing the LC consultation rooms was to facilitate students with car parking, which is a challenge within the university premises. Students mentioned that being able to park their cars in the adjacent open car park made a difference for them.

The always-hospitable Omani teachers and students feel instantly at home with their favourite cardamom-coffee aroma. This coffee is known as 'kahawa' in Oman. So, I treated my Omani and non-Omani participants to a choice of sweets, savouries, kahawa, soft drinks, and tea before/after the interviewing process. The intention was to make participants who had to walk or drive (between lectures and buildings) feel comfortable. Again, before starting the interviews, I reminded my participants that (a) they are free to withdraw during and even after the interviews, without any consequences to academic, student-teacher, and teacher-teacher relationships, and that (b) the data collected from them would not be used for any other purposes than the ones that are mentioned, and that (c) this data would be kept securely at home where university will not have access to it. I also asked for their permission verbally, to record the discussions that took place after the interviews (when/if these discussions were relevant to my research).

After the main interviews, 04 teachers continued their discussions as post-interview dialogues, which are also recorded with their permission and treated as data in the analysis. I transcribed all the interviews myself and ensured that participants had a closer look at the initial interview transcripts/drafts for verification before proceeding to the interpreting stage.

However, only two teachers (Toby and Damian, Interview 1) were interested in reviewing their own interview transcripts. They returned their transcripts and since there were no contradictions about the transcribed data, these transcriptions were safely stored along with the other 20 records.

I ensured that I follow the same procedure within the second interview process. I started the second interview process by informing the same participants (who took part in the first set of interviews) about the need for a second interview. They were agreeable, cooperative, and led to the success of the second set of interviews. The only additional activity was that I recalled the key aspects of the first interview that I had with each participant, in order to refresh the topic/content. Consequently, participants felt that they were able to respond to the questions of the second interview without hesitation.

These guidelines have enabled an in-depth look into the ethical practices of research culture. I feel privileged to have been able to conduct my research in an ethical manner without making unreasonable demands on my participants or harm them physically or mentally, and be unfair, or unjust. Instead, the ethical considerations have enhanced my respect and ethical treatment of participants who offered to share their life experiences with me.

4.8. Summary of chapter four

To sum up, chapter four attempted to provide a rationale for the methodologies that the research used. Therefore, it discussed the characteristics, epistemology, and the ontology of the qualitative paradigm, the method of qualitative case study, the design of this research, the data collection tool of semi-structured interviews, participant selection process, ethical concerns in conducting this research, as well as thematic analysis as the approach to data analysis. These reviews of paradigmatic stances, methods, and their outcomes have enabled awareness of 'how to go about' collecting data in relation to the research questions. As the central theme of the research and research questions is, 'developing critical thinking in EFL learners through the perspectives of CHAT in the context of SQU in Oman'; the success of the research depends on finding out the relevant stakeholders' views about it, and the methods that are used to gain the views. Therefore, chapter four enlightens me about the seriousness of choosing effective research methodology, methods, participants, and seek meaningful interpretations that enlighten my community and the wider audience.

This chapter also reviews the four aspects that contribute to the trustworthiness of a qualitative research. Therefore, it describes and justifies its choice of the data triangulation technique, which takes advantage of the two sets of research participants chosen from the same context, allowing teacher views to be corroborated through student views, and vice versa. Furthermore, the study also gains the advantage of triangulating both student and teacher views through the important curricula documents that chapter two mentions as they shed light on some of the important contextual academic characteristics. Moreover, as an important element of a description of research methodology, chapter four offered a closer look at the process that this study follows in analysing the data. Identifying with the stance of the qualitative paradigm, this chapter recognises the interpretation and analysis of participant interpretations as co-construction of the multiples realities of the participants and the researcher.

A discussion on the ethical stance of the study completes chapter four. This section discusses the importance of being ethical as a researcher when dealing with the others. In light of that, the chapter offers the view that protecting the identity of the participants, treating them with dignity, respecting them for volunteering to share their personal views, and ensuring a safe environment that can lessen, if not neutralise, the power relations, contribute to conducting an ethical research. Chapter three also sheds light on focusing on the significance of theoretical and conceptual generalization than statistical generalization of the findings of this qualitative study. Influenced by this detailed explanation about the phenomena of research conduct, the next chapter presents the analysis of the pilot study.

Chapter Five: The Analysis of Pilot Study

5.1. The analysis and discussion of the pilot study

Chapter five provides the analysis of the pilot study. Chapter five is short and isolated from the main analysis of this research. Based on the results of the pilot study analysis, chapter five offers a look at the modified sub-research questions as the conclusion of the chapter.

5.2. The analysis and the discussion of the pilot study

As described in chapter four, participants were chosen through purposeful random sampling and the pilot interview participant was chosen from within this chosen sampling group (pp.95-97). The pilot interview participant was the first student participant who responded to my email-request to take part in my research. As the research was designed with the idea of conducting two sets of interviews, the second set of interviews followed the semi-structured interview protocol designed for the first set of interviews. The pilot interview was held at the neutral location of the pre-booked consultation room at the LC (SQU). Within the interview conduct, after the pleasantries and refreshments, the participant was reminded of the right to withdraw, the need to sign the participant consent form, and to choose a preferred pseudonym. The first interview with Fahid was conducted for approximately 35 minutes and the second interview which was conducted on a later date, took 45 minutes. As each interview was summarised at the end of the interview, it led to reflections. These reflections helped to review and revise the interview questions in ways that encouraged the merging of ideas/questions for clarity; deleting and replacing questions/phrases, lessening ambiguity; and modifying questions to gain comprehensive responses. Clearly, this process added coherence and clarity to the interview questions, refining them.

The initial interview questions were designed to raise awareness of the meaning of the concept of critical thinking, its qualities, and the habits of critical thinkers. Consequently, after defining the concept, discussing its qualities, and the characteristics of critical thinkers; Fahid was teaming with interest to discuss the importance of developing critical thinking in Omani learners. It showed the effectiveness of designing and organising interview questions in ways that prompt the key concepts as ‘planned prompts’. Another technique used as a ‘planned prompt’ was to ask questions in a way that enabled comparison between

phenomena. It was the case with Fahid, when he was asked to identify the qualities of traditional teaching and describe one of the occasions where students were given peer-learning opportunities. While the process brought effective results, it was not without challenges. One of the prominent issues was that Fahid was by nature a student who responded to questions with either yes or no. So, as the interviewer, I had to often ask ‘probing questions’ such as ‘why and how’ for the purpose of prompting/eliciting further explanations. One of the positive outcomes of this experience was that I managed to re-word and refine the prompting questions based on the notes that I made during the pilot interview. Secondly, observing Fahid’s response time between single-phrased responses and brief discussions also provided a sense of response time needed for brief discussions during the main interview processes.

Interestingly, Fahid often repeated the questions or some key phrases in those questions that asked for descriptions or explanations. For instance, he would repeat, “the qualities of critical thinking... the qualities...”. During the first few occasions, I offered to rephrase the original interview question and later it became clear that they were rhetorical questions, indicating his strategy for clarifying concepts, understanding questions, searching for vocabulary, as well as time-fillers to form his responses. Therefore, these ideas were built into the response-time during the main interviews. However, they also reminded me about giving space for interviewees as individuals are bound to display different mannerisms, habits, and tendencies. Moreover, since these aspects can be individual as well as cultural identities, awareness of them can contribute to the success of interview conduct, enabling cultural-sensitivity in the researcher.

The analysis of the pilot study provided comprehensive responses to the main research question of my study, which was ‘In what ways can the EFL teaching/learning practices, centring constructivist principles, develop critical thinking in learners in the context of Oman? My strategy was to identify the three important aspects of teacher role, learner role, and the role of the constructivist learning environments (CLEs) based on the participant responses to the 6 sub-research questions. This shows that the semi-structured interviewing as the chosen technique of data collection was an efficient tool in eliciting meaningful responses. Within that the most important aspect remains as its flexibility; facilitating the

shifting, replacing, and re-forming of questions, contributing to the sense-making process of the interviewee.

5.3. Summary of chapter five

One of the major contributions of the pilot study analysis was that it helped to revise the sub-research questions of this study.

Revised sub-research questions: conclusion of chapter five

The <u>original</u> six sub-questions used in the pilot interview:	<u>Revised</u> sub-questions in preparation for the student and teacher interviews:
1. Why is developing critical thinking in Omani students important? 1.1. Defining critical thinking 1.2. qualities of critical thinkers 1.3. importance of developing critical thinking	1. The importance of the concept of critical thinking to Omani students: 1.1. How would you define critical thinking? 1.2. What are the qualities of critical thinkers? 1.3. What are the important habits that critical thinkers have? 1.4. What are the key reasons that make developing critical thinking important for the Omani learners?
2. Whether/in what ways do the current EFL teaching practices contribute to develop critical thinking in learners?	No revision
3. In what ways can the constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in EFL learners?	No revision
4. What are the out-of-classroom contextual elements that can contribute to develop critical thinking in EFL learners?	No revision
5. What are, if any, classroom/social factors that can be barriers/hindering factors to developing critical thinking in learners?	Questions 5 and 6 were merged in a way that makes more sense as to discuss what works and what stops it from working.

<p>6. What are the ways that those effective teaching/learning practices and key social elements can be incorporated into curricula/syllabi/classroom practices?</p>	<p>Therefore, the revised version of sub-research question 5 asks,</p> <p>What are the key teaching/learning practices and strategies that contribute to develop critical thinking in EFL teaching and what, if any, are the barriers for their effective implementation?</p>
--	--

Consequently, the sub-research questions that will be used within the main data collection approach will be the following 5 questions:

1. What are the key reasons that make developing critical thinking important for the Omani learners?
2. Whether/in what ways do the current EFL teaching practices contribute to develop critical thinking in learners?
3. In what ways can the constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in EFL learners?
4. What are the out-of-classroom contextual elements that can contribute to developing critical thinking in EFL learners?
5. What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching and what, if any, are the barriers for their effective implementation?

Chapter Six: Findings and Discussions

6.1. Introduction to chapter six

This chapter explores the teacher and student participants' views on developing critical thinking in Omani EFL learners in light of the main and sub-research questions, literature review, and theoretical framework. The main research question and the six sub-research questions (p.20) are informed by the theoretical perspectives of social constructivism (Vygotsky, 1978) that CHAT represents.

Centring the belief that an analysis of data is a multi-layered approach; the study begins by seeking the emerging patterns within the findings. Deepening the understanding of these patterns by consulting the expert views that are examined within the literature review and the study's theoretical and methodological stances; the discussion seeks meaningful interpretations, attempting to provide explanations for occurrences. The study maintains its rigor by constantly relating to its established network of trustworthiness that includes peer-reviewing of the analysis, triangulating teacher and student views, referring to the literature review, and using researcher's reflective stance with integrity regarding the knowledge of the context etc.

Selected through random purposive sampling, participants were chosen for their unique contributions in terms of knowledge of the context-specific traditions, academic practices, and their knowledge of the accumulating academic needs (in relation to the research theme) in general. Hence, the participants' life experiences form an invaluable part of this exploratory research.

Chapter six is organised into two main sections. It provides the analysis and discussion of students' perspectives first, followed by the analysis and discussion of teacher perspectives. Themes of the data analysis derive from the topic of the research and the sub-research questions, where the data collection tool of semi-structured interviews help to gain insight into the participant beliefs about the research theme (interview questions; appendix, 3). Subsequently, the emerging data compels answering the main question in relation to the three aspects of teacher role, learner role, and the role of the CLEs. Based on the analysis of the

pilot study results, the six sub-research questions have been modified where necessary. Hence, the revised sub-questions that were used in collecting data and data analysis include,

1. What are the key reasons that make developing critical thinking important for the Omani learners?
2. In what ways/whether current EFL teaching practices contribute to develop critical thinking in learners?
3. In what ways can the constructivist principles, within the perspectives of CHAT, contribute to develop critical thinking in learners?
4. What are the out-of-classroom contextual elements that can contribute to developing critical thinking in EFL learners?
5. What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching, and what, if any, are the barriers for their effective implementation?

Twelve teachers and twelve students were chosen for interviewing. The reason for choosing twelve participants was because in case any teacher or student withdrew, the study will still retain a decent number of participants. All in all, since one of the twelve student participants was chosen to be the pilot interview -participant, and another student participant stopped communicating just before her scheduled interview, the total number of student participants remains ten. It is also the case with teacher participants because one of the teachers who kept cancelling the interview date, later stopped communicating. Therefore, the number of teacher participants remains eleven. In the analyses below, both students and teachers have been identified by pseudonyms and the interviews are also labelled using their pseudonyms. For example, I refer to specific interviews as the 'interview with Mohanned' (a student) or 'interview with Kathya' (a teacher) in the analyses and discussions. Each interview also indicates whether it is 'Interview 1' or 'Interview 2', because 'Interview 1' focused on the aspects of critical thinking and 'Interview 2' focused on the ways that constructivist approaches contribute to foster critical thinking. Chapter six includes an overall discussion that amalgamates both the interpretations of the findings of the student and teacher perceptions, arriving at its summary.

6.1. The analysis of student perspectives

6.1.1. SUB-RESEARCH QUESTION 1:

What are the key reasons that make developing critical thinking important for Omani learners?

The semi-structured interview questions were designed (and organised) in a way that raises awareness of critical thinking, i.e. using prompting (appendix, 3). As a result of this kind of scaffolding, students were able to build a clear understanding about the meaning of critical thinking (definition) and the qualities of critical thinkers, enabling them to identify the reasons why developing critical thinking is important.

6.1.1.1. Defining the concept of critical thinking

“Critical thinking is really kri`tti`kal thinking...” (Khalil, Interview 1). This is a short and simple definition offered by a student who is studying to be an engineer. By stressing the word abnormally, Khalil tried to highlight the critical nature of critical thinking. Eight out of ten student participants defined critical thinking as a single skill. For instance, Ricardo (Interview 1) said critical thinking means ‘creative thinking’; Shana (Interview 1) said that critical thinking is ‘analytical thinking’; and Aysha defined critical thinking as ‘thinking outside the box’. These views indicate that students are familiar with the higher order thinking skills that stem from Bloom’s taxonomy, a framework prioritised in education (Anderson and Krathwohl, 2001). Similarly, every skill that these students compared critical thinking with, is a higher order thinking skill. This shows that students are aware of the (a) relationship between critical thinking and higher thinking skills, and (b) that critical thinking is an important skill because it involves higher thinking skills. Clearly, this study considers students’ awareness of the importance of critical thinking as an advantage that is relevant to education and Omani students.

6.1.1.2. The qualities of critical thinking

Six out of the ten student participants (Ali, Aysha, Mohammed, Khadija, Khalil, & Shana) said that critical thinkers differ from the average thinkers because of the special qualities. Collectively, these students highlighted that ‘creative thinking, patience, being open-minded, clarity, and using many thinking skills simultaneously’ are among the special qualities. Out

of these six students, Aysha was the only student who ‘took time’ to answer. After thinking for about a minute, Aysha said that critical thinkers have,

...the quality of analysing stuff patiently and silently. I think when they do things like solve problems, they use like... all thinking skills. Another quality is that because they want to be critical, they read a question more than one time (Interview 1).

On the other hand, one of the students (Bishara, Interview 1) seemed to be diverting her attention away from discussing the qualities of critical thinkers, as she started discussing her role model, i.e. her father. Thinking-aloud, Bishara discussed her father’s behavioural patterns when he is engrossed in the decision-making process rather than identify the qualities that emerge from the process of thinking.

Six students displayed their ability to discuss a topic that they are not very familiar with. They used both the strategies of recalling from memory and analytical thinking. Five out of these six students admitted that they were recalling the qualities from memory since they prepared for the research interviews by reading about the topic. However, Aysha, who had not read or memorised the qualities of critical thinkers, showed her ability to immerse in analytical thinking. She admitted to reflecting on the best way to approach problem-solving, before making the assertion that critical thinkers read a question more than once in order to be critical.

Experts agree that taking time to think and being patient, as opposed to responding to a question immediately, is a quality of critical thinkers (Ennis, 1996). Reading a question more than once implies: (a) taking time to analyse the segments within a question, (b) reviewing one’s existing knowledge (what is known), (c) the opposing views, (d) determining what more should be known to solve the problem, and how to form effective responses. Clearly, taking time to think is a quality that identifies a critical thinker from the average person, who may offer a routine response from memory. The discussion supports the point that reading a question several times/reviewing a problem more than once can be a significant quality of critical thinkers, providing them with the opportunity to uncover the deeper layers of a question/problem.

Aysha also stated that critical thinkers use “all thinking skills” when solving a problem. Scholars agree that critical thinkers possess the exceptional quality of using higher order thinking skills at different stages of problem-solving (Mulnix, 2010; Bailin et al., 1999b; Ennis, 1996; Paul, 1990). For instance, Mulnix (2010) writes how critical thinkers identify

the problem by analysing the question before seeking solutions by thinking creatively and critically. Ennis (1996) further clarifies that critical thinkers may not use every thinking skill at the same time, but they use diverse thinking skills at different stages in problem-solving, compared to an average person who may or may not use many skills.

In general, many Omani students (five out of ten) showed their preference to recall information from memory than engage in thinking. They showed that acquiring information is their preparation strategy which is the key to success (implying academic success). Their inclination to simply relay information rather than use information as background knowledge to think analytically; supports the current view that Omani students prefer rote-learning to critical thinking (Mehta & Al-Mahrouqi, 2014). However, Aysha's discussion shows that students can be stimulated to think critically by prompting prudently and creating stress-free environments. Aysha's view that 'critical thinkers are patient and silent' has a special significance to Omani students because as Emenyeonu (2012) also highlights, Omani students prefer to sit 'patiently and silently' in their classes as passive students. These qualities can be used as an inlaid foundation to interlace the qualities of critical thinking, such as taking time to think.

6.1.1.3. Habits of critical thinkers

The relation between habits of thinking and critical thinking is that habits, as tendencies, drive individuals to think critically. Thus, fostering critical thinking should be accompanied by fostering the habits of thinking. However, nine (out of ten) students were hesitant to express their views about the topic. Their only explanation was that 'thinking critically' is the habit of critical thinkers. Their answer to this question is similar to the way that some students avoided discussing the qualities of critical thinkers.

Ali was the only student who was interested in continuing the discussion. He defined a 'habit' as something that one does without being consciously focused on doing it (Interview 1). Reflecting on his own ways of studying, Ali thought that 'being interested in solving a problem' is a habit that critical thinkers have. Paul (1990) identifies this habit as developing 'intellectual curiosity'. Ideally, intellectual curiosity drives critical thinkers to 'invest' (Barnett, 1997) in a problem, understand it in depth, and seek solutions, using diverse higher order thinking skills. Scholars add the habits of 'being reflective, exercising good judgement, and being open-minded' are crucial habits of critical thinking (Munich, 2010; Ennis, 1996;

Paul, 1990). These habits of thinking show that without them, the element of criticality in thinking will be poor.

6.1.1.4. Importance of developing critical thinking in Omani learners

After discussing the definitions of critical thinking, and the qualities and habits of critical thinkers; students were ready express their views on the importance of developing critical thinking in Omani learners.

To begin with, Mohammed (Interview 1) offered the primary argument that Oman has “changed, developed, and moved away...” from its “traditional and quiet, village lifestyle”. The fast-phased modern living that has replaced it, requires competitiveness in every aspect of life, indicating the need for the Omani students to develop critical thinking for their survival. Mohammed further explained that “life 50 years ago was different from today...” for the Omani people, because the highest scholastic achievement required for the lay person a few decades ago was learning to “read the sacred Islamic scripts of Quran”. Mohammed makes the point that Omani students face diverse academic and professional challenges today, which can be “too challenging” for them without developing critical thinking skills.

A second important reason is that “...jobs today need research to face the competitive world; so when students become employees, they need critical thinking to do critical research” (Aysha, Interview 1). Aysha evaluates the significance of research in future academic and professional workplaces, relating to professional development vs. stagnation. The implication is that the 21st century jobs that encompass different scopes of work, skills, and knowledge categories (Johnston et al., 2011) pose significant demands for future Omani employees, unless they develop the skills of problem-solving, critical research, and critical thinking (Tuzlukova et al., 2017; Romano & Seeger, 2014; Al-Issa, 2012).

In Hasanath’s (Interview 2) view, critical thinking is taking place in the Omani society in different ways, “because a country can’t function without thinking critically”. Hasanath’s argument is that the decisions that the government, universities, or trade deals make are critical. Omani students will be deprived of working in these fields (in their own country), if they do not develop critical thinking skills. The Omani government already employs a huge number of expatriates, filling out the high-profile government positions, anticipating a trained future Omani workforce through the Omanisation project that was launched to replace the expatriate workforce with trained and skilled Omanis. Though initiated in 1996, comprising

three phases, the Omanisation project has yet to reach the expected Omani employment percentages (Romano & Seeger, 2014). This is a key indicator of the need to develop critical thinking skills in Omani students, enabling them to achieve their personal academic goals, contributing to the achievement of the national goals.

Another fundamental reason for fostering critical thinking in Omani students is because knowledge of the subjects (declarative knowledge) needs to be connected to knowledge of the practices (procedural knowledge) in order to fulfil the real-life needs (Mohammed, Interview 1). Mohammed's argument is that Omani students are at a disadvantage when it comes to the application of the practical side of the academic knowledge in professional capacities. Agreeing with this notion, Al-Mahrooqi (2012) and Al Issa (2012) emphasise that academic knowledge needs to inform real-life performances, transforming into professional competence. In her study on novice EFL teachers, Al-Mahrooqi makes the point that 'knowledge that' and 'knowledge how' are equally important to performance at work but enabling these two kinds of knowledges in a professional capacity can be hindered by lack of reflective and problem-solving skills. Al-Mahrooqi states that the bridge between subject knowledge and practical knowledge can be missing due to lack of meta-cognitive thinking and critical thinking. Mulnix (2010) and Black (2008) who affirm the claim, write that these skills help individuals to self-analyse and correct what is amiss, seek solutions with the use of analytical skills, and apply them in rational, logical ways.

On the other hand, Ricardo (Interview 1) highlighted that critical thinking is important only for some people, and not for everybody. In his view, "...it is important to learn critical thinking, may be for competitive people because they need it, but not all students" (Interview I). Ricardo makes the valid point that an Omani citizen living in a peaceful, rural, village may not exercise competitive thinking as much as an urban professional is required to. However, considering the increasingly competitive nature of the Omani economy; due to its global socio-economic and political affiliations, developing critical thinking is an unavoidable choice for future citizens who are the current university students of Oman.

Ricardo's argument raises the need to define critical thinking in a context-appropriate manner and raise awareness of it. Students need to become aware that critical thinking is a way of thinking and a way of learning (Brookfield, 2012). Therefore, fostering of critical thinking contributes to enhancing learning, guiding students towards achieving their

academic and professional goals. Hasanath's view that Oman's high-profile jobs await Omanis who can think critically aligns with Halpern's (2000; 1983) stance that any career requires critical thinking in different ways, to different capacities. Halpern (1983) explains how the profession of law requires logical and analytical perspectives in a different way from teaching which needs a teacher's logical, analytical, and critical perspectives to better the students.

In general, Aysha, Hasanath, and Mohammed have put forward crucial arguments that support the need to foster critical thinking in Omani learners, aligning also with the stance of this study. These arguments also reveal that the prospects of Omani students depend on their adaptation to the fast-changing job categories, which require critical thinking skills. Secondly, Ricardo's healthy scepticism that not all students need to develop critical thinking heightens the need to define critical thinking in a context-appropriate manner, clarifying that critical thinking is a way of thinking and learning from which all students benefit. These four students' exceptional arguments exemplify how raising awareness of the meaning, qualities, and habits of critical thinking has awakened their analytical and critical perspectives, aligning with the stance of this research that collaborative meaning-making fosters critical thinking.

6.1.2. SUB-RESEARCH QUESTION 2

Whether/in what ways do the current contextual EFL teaching practices promote critical thinking?

I think teachers at SQU actually think about their students. They want us to pass our courses. So, some teachers, like have this strategy of teaching really, really hard, making us write essay after essay. But there are some teachers that ask us to write essays and forget about them totally. Sometimes, students go to the exam without teacher's feedback or practice...but there's no doubt I learned how to write essays from the foundation courses, and I had, like lots of language practice... like spellings and grammar and compare/contrast essays, but I don't think our teachers focused on critical thinking, not really... (Aysha, Interview 1).

Aysha's reflection sums up the views of the other 8 student participants who agreed that the current EFL teaching practices lack focus on promoting critical thinking in students. One student (Khadija, Interview 2) mentioned that she cannot remember any of her teachers using

the word ‘critical’ relating to thinking or learning in her foundation classes. However, Khadija eagerly highlighted that all EFL teachers at SQU are well-focused on developing EFL related skills that the course books mention. Both foundation and credit course books (in-house and/ commercial) centre on the Learning Goals and Learning Outcomes that LC’s curricula state. In addition to the learning goals related to the four skills, EFL teaching focuses on developing higher order thinking skills (Anderson & Krathwohl, 2001), such as reflective thinking and analytical thinking. Since these skills are mentioned as learning outcomes (FPEL document, 2011-2012 & CELP document, 2012-2013); as Khadija asserts, EFL teachers concentrate on fostering them. The implication is that incorporating critical thinking as a learning outcome can enable teacher focus on fostering critical thinking in EFL classes.

In Ali’s (Interview 1) view, many EFL teachers at SQU are motivated to ‘just’ teach the course book and cover the syllabus rather than make an effort to engage students in learning. This view enables the understanding that teacher motivation plays a big role in motivating students. Ali adds that when teachers recognise and praise even the smallest achievements of students, they impact positively on the individuals. However, since demotivated teachers are not attentive and disregard their teaching responsibilities and students (Aysha, Interview 2), such teacher behaviours impact students’ learning negatively. In order to avoid these ‘harmful effects of demotivated teachers’ (Schiefele et al., 2013), institutions need to take the responsibility of motivating teachers through professional development programs.

In short, different reasons can cause a lack of focus on fostering critical thinking within current EFL practices. According to the students’ discussion above, teacher motivation and syllabus structure that integrate the learning goals and outcomes can be determining elements.

6.1.3. SUB-RESEARCH QUESTION 3

What are the ways that constructivist principles, within the perspectives of CHAT, can contribute to developing critical thinking in EFL learners?

All student participants showed an interest in exploring and discussing the ways that constructivist teaching approaches contribute to developing critical thinking in EFL teaching.

They admitted that they would like to know more about the teacher-centred and learner-centred approaches.

Khalil (Interview 2) expressed the view that learner-centred approaches enable the freedom to talk and ask questions from peers within the class time since it is a key to critical thinking. Khalil makes the point that students do not get opportunities to discuss and clarify important ideas currently because the existing teaching practices often restrict, rather than encourage seeking peer-support, when support is needed during classroom learning/activities. Khalil's second point is that students will be able to use many strategies to "explain things" in the ZPD, when learner-centred approaches are used in EFL teaching (Khalil, Interview 2).

Discussing the same advantage of getting peer assistance, Aysha says that this may look like a very small difference to the others (students/teachers) but in truth, it makes a "huge difference to a student who needs a different kind of assistance" that differs from the pre-planned scaffolding that a teacher may have prepared, because in order to think critically, one needs to understand the relevant point/content (Interview 2).

Both Khalil and Aysha emphasise that learner-centred teaching can increase students' learning capacity, facilitating critical thinking. They point out that when students are scaffolded at the time they need assistance in creating knowledge in meaningful ways; learning is facilitated, providing opportunities to promote critical thinking. These students make the point that without 'this understanding' with peer help, a bridge to knowledge that accommodates the larger picture may escape learners. Consequently, further knowledge-building and critical thinking are jeopardised because the average students are not critical thinkers and may lack the ability to pursue the specific ideas that they missed in the class. Though well-structured teaching material and diverse teaching strategies can provide pre-designed scaffolding from questioning to learning activities within teacher-centred practices; the levels of understanding (of students) vary in mixed-ability classes. Therefore, facilitating peer scaffolding is an effective strategy that contributes to: enable meaning-making, voluntary and involuntary learning, and promote critical thinking, which learner-centred teaching enables (Richardson, 2003).

Secondly, 2 students (Shana and Khalil, Interview 2) mentioned that in teacher-centred classrooms, teachers "talk, talk, talk...", inhibiting students from seeing whether or how their students learn. In contrast, constructivist teachers focus on facilitating students' interaction in

learner-centred classrooms, paying attention to what students say and how they talk. Consequently, students are “encouraged and motivated” to have discussions, question their peers, argue, and be critical, because “you can’t be more critical than when you are arguing...” (Khalil, Interview 2). In these students’ view, facilitating peer discussions by scaffolding students and creating opportunities for expression of views can enhance students’ critical thinking.

Constructivist teachers use diverse scaffolding techniques, including the technique of questioning to prompt thinking and teaching/learning materials in addition to the student course books (Brooks & Brooks, 1993). Teachers who invest in learning about their students’ abilities, strengths, and weaknesses by evaluating their students can be better judges at employing appropriate scaffolding. By using appropriate scaffolding and involving themselves as tools of scaffolding, i.e. the more knowledgeable peer; constructivist teachers play a greater role in enhancing learning, ultimately contributing to fostering critical thinking (Brooks & Brooks, 1993). Student and teacher interactions in EFL classrooms mean more than simple language practice for the L2 learners because these interactions are modes of cognitive stimulation and development for learners (Aljaafreh & Lantolf, 1994; Vygotsky, 1979).

Thirdly, opposed to the teacher being the centre of attention, learner-centred classrooms are inviting spaces for students (Hasanath, Interview 2). They are constructivist learning environments (CLEs) that stimulate interactive learning as their physical (and conceptual) arrangements encourage ‘social interaction’ and ‘collaboration’ among students (Vygotsky, 1979). Interaction and collaboration with peers provide the exposure that L2 learners need for developing their interactive and thinking skills. CLEs enable students to learn from each other because students have the opportunity to notice how the ‘more knowledgeable others’ perform. Students get the opportunity to notice, imitate, and acquire specific learning and critical thinking strategies by practising them within the ZPD (Bruner, 1996).

Noticing, imitating, practising, and acquiring are some of the primary learning strategies that the L2 learners follow in developing ‘language skills’ (Michelle & Myles, 1989) and ‘thinking skills’ (Bailin et al., 1996b). However, these skills cannot be developed in isolation individually, since internalising meanings/knowledges occurs after individuals construct their meanings socially (Vygotsky, 1979). Therefore, in order to notice, imitate,

acquire, practice, and master EFL language skills and thinking skills, L2/EFL learners need opportunities to interact socially, which the learner centred-teaching approaches can provide by creating CLEs.

Though students use diverse thinking strategies when they construct meanings, social interaction is the foundation of meaning construction. Learner-centred teaching creates CLEs that are stress-free, allowing ‘processing time’ (Krashen, 1980), providing consistent interaction through peer-teacher and peer-peer interaction through group work within ZPD. CLEs in language learning classrooms are acclimatised to prompting higher order thinking in L2 learners, seeing as L2 learning offers the advantage of using two sets of the highest cultural tools of L1 and L2 (Mitchell & Myles, 1989). This advantage makes CLEs in EFL teaching highly conducive to fostering critical thinking.

Another important characteristic is constructivist teachers’ acknowledgement that their students already possess different kinds of knowledge when they enter their EFL classrooms. When teachers encourage student interaction, they encourage learners to share/use their existing knowledge, making learners feel that they have “something important to say” (Shana, Interview 2). This acknowledgement empowers students, motivating them to create more knowledge through interaction (Scardamalia & Bereiter, 1986, cited in Kurfiss, 1988, p.62). Teachers’ acknowledgement ensures that students’ knowledge is valued because constructivist teaching promotes individual and multiple realities (Brooks & Brooks, 1993), rather than aiming for a single reality. This automatically sets the foundation for learner autonomy. For instance, Ali (Interview 2) says⁶, “when my teacher says that the articles I have chosen are suitable for our project, it’s like she [*is*] trusting me...so, I feel confident and search [*for*] more articles”.

Ali’s reflection epitomises how his teacher’s acknowledgement of his work (learning activities) has encouraged him to become more autonomous. His discussion evinces that focusing on the message/content rather than grammar helps to build students’ confidence in communicating, casting a positive light on developing learner autonomy. Autonomous learners may have greater opportunities to develop critical thinking as they make decisions about learning by themselves, choosing the learning material or the modes of learning etc.

⁶ This quote by Ali retains his own words/sentence structure without being corrected by the researcher.

since decision-making is a serious process that involves self-questioning and self-analysis, leading to critical thinking.

In sum, 6 out of 10 student participants have identified specific ways that constructivist principles, within the perspectives of CHAT, can contribute to develop critical thinking in EFL learners. The first point that emerged through the discussion was that the greatest difference between the learner-centred and teacher-centred approaches is focusing on the learners, allowing the freedom to interact socially, enabling learning and enhancing thinking. Scaffolding at the right time, in meaningful ways is a key path to critical thinking.

Secondly, since scaffolding includes the teacher as a more knowledgeable peer, teacher-student interaction is more than simple language practice as teachers influence the development of their students' cognitive and critical perspectives. Thirdly, the less proficient Omani learners are likely to benefit more from CLEs, where enhanced scaffolding in stress-free ZPDs lead to plenty of processing time. Fourthly, in students' view, the strength of CLEs in EFL classes includes enabling learners of the use of L1 and L2 interchangeably, while the fifth point relates to making use of existing knowledge to further that knowledge in EFL classrooms. The sixth important contribution of learner-centred approaches described how they encourage learner-autonomy by empowering learners. Student participants had missed the role of constructivist teachers and the role of questioning as a learning/thinking strategy in fostering critical thinking. The link is that constructivist learning environments, teacher roles, and learner roles work in combination to promote critical thinking. Student participants have exemplified constructivist learning by engaging in meaning-making through social interaction during the interviewing process.

6.1.4. SUB-RESEARCH QUESTION 4

What are the out of classroom/contextual elements that can affect the fostering of critical thinking in learners?

Khalil, Aysha, Shana, Zahra, and Mohammed (Interview 1) acknowledged that they had heard the words 'critical thinking' before they participated in my research, though they had not explored the term closely.

Aysha and Hasanath (Interview 1) asserted that Omani people think critically at different levels in different places. However, they often "...just do what they have to do without

thinking about it, so maybe their thinking will be good like critical or maybe it will be bad and not critical” (Aysha, Interview 1). These student participants also discussed the example of how Omani people are critical when they are buying a family vehicle, because they will think about the various uses of it (Ali, Interview 1). Aysha added that when university students are choosing their online courses, they think critically (Interview 1). They discussed how the Omani people think critically when there is a need to do so, implying that Omanis often indulge in the decision-making/problem-solving out of memory/habit than thinking critically lest it is not a dire situation. In Zahra’s (Interview 1) view, the Omani social characteristic of barring the younger generation rather than involve them in the family/social decision-making decreases critical thinking in students’ view. Students imply that though Omani people do not lack the ability to think critically, they tend to exercise critical thinking rarely.

The idea is shared by Kurfiss (1988) who says that people often tend to respond to situations out of memory, rather than think anew. However, using memorised responses can be detrimental, because each problem contains a different context, situation, or a human element (if involved). Consequently, the same memorised response may not be adequate to solving different problems or in different contexts. Problem-solving involves decision-making, which centres on evaluating the relevant criteria and without such an evaluation, the prediction as the outcome of the decision can be ineffective (Halpern, 1998; 1984). Irresponsible decision-making is ill practice in the academic, professional, and real-life global environment that Oman is striving to join (Vision, mission, and the Objectives of SQU, n.d.). Therefore, developing critical thinking that fosters the habits of thinking, problem-solving, decision-making, as well as reflective and analytical thinking becomes an effective solution.

Lack of social forums for promoting critical thinking outside of academia due to people’s “misconception about the meaning of critical thinking” can be a cause for students’ reluctance to think critically (Khadija, Interview 1). Reminiscent of cultures’ right to judge (Ennis, 1998), emerging social dialogue shows that Oman is beginning to understand that critical thinking is a very focused way of thinking that can be culturally compatible, rather than negative criticism. In light of that, Tuzlukova, Al-Busaidi, & Burns (2017), Al-Mahrooqi (2016), and Mehta & Al-Mahrouqi (2012) argue for a better understanding of

critical thinking, highlighting the value of critical thinking within and outside the academic environment.

Omani media seems to support critical thinking as an educational concept. Critical thinking is yet to be integrated into curricula and syllabi at SQU. However, Bishara (Interview 1) who was well-prepared for her interview, brought a newspaper article on the need to foster critical thinking in Omani learners. The article was written by an Omani student, arguing that SQU should focus on developing critical thinking in teaching/learning (appendix, 5). Bishara (Interview 1) further explained that media can promote an interest in developing critical thinking at national level since today's Omani generation comprises more readers than in the past, reaching a wider audience.

To sum up, the discussion on the effectiveness of the contextual elements in fostering critical thinking in Oman revealed a glimpse into the cultural compatibility of critical thinking. One of the important findings was that Omani students may not use critical thinking overtly and regularly, not because they cannot; but often because they are not given the opportunity to do so in their academic and socio-cultural environments. Therefore, an effective solution to developing students who achieve their academic goals, is to integrate focus on developing the skills of critical thinking, problem-solving, and decision-making in EFL teaching. While a lack of social forums within the context of Oman was considered a disadvantage to developing critical thinking, a glimpse into contextual media shows that critical thinking is gaining the attention of media. Within the tradition-oriented Omani society, the development of critical thinking seems to rest on the acknowledgement by social institutions, such as SQU.

6.1.5. SUB-RESEARCH QUESTION 5

What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL learners and what, if any, are the barriers for their effective implementation?

Shana's (Interview 1) critical observation was that reading lessons should not be just reading "only" to answer the given questions. Instead, reading should include critical reading activities that allow students to "... argue with the text". However, since reading is also not the favourite habit of Omani students even at the university level, developing a reading culture/critical reading can be a daunting task for EFL teachers. Answering her own query,

Shana says that EFL students have the advantage of developing many techniques of reading and learning, so when their teachers model the special techniques, the students will learn. She acknowledged that she learned to read critically because one of her EFL teachers at the university took time to model how to question the text in relation to the written style (genre) and the content (Interview 1).

Teachers have a responsibility to introduce students to ‘argue with the text’. One of the ways is to ask questions, using ‘who, why, and how’, bridging reading and critical thinking by drawing out students’ reasoning skills (Paul, 1993; 1990). EFL teaching has the capacity to engage students and go beyond the text, bringing ‘real-life’ situations into the classrooms (Macknish, 2011) when the content and element of language are adept at connecting the critical aspects of real-life. Hence, critical reading in EFL classes can make students identify issues that are ‘real’ to them, making reading meaningful (Freire, 1970). Moreover, students can be guided to use the critical lenses that they develop in critical reviewing to evaluate their own use of language aspects, including the vocabulary that they need to support their stances with evidence. Consequently, critical reading classes in EFL teaching become ideal places to foster critical thinking and its dispositions such as open-mindedness. Comparatively, a traditional EFL classroom may not facilitate the critical aspect of critical reading since the element of interactive learning is limited with more teacher-talk than student-talk. Instead, constructivist EFL learning environments that facilitate student-talk more than teacher-talk in physically and mentally, have the potential to encourage interaction and scaffolding.

The second most important constructivist practice of teaching that contributes to fostering critical thinking in EFL teaching is questioning (Aysha, Bishara, Hasanath, Khalil, Mohammed, Ricardo, and Shana, Interview 1) as questions make people think “...really critically” (Ricardo, Interview I). These students highlighted that in order to answer a question, one needs to understand the question, find the relevant information from his/her background knowledge, and think logically as to how the answer fits the question in a few seconds/minutes. This shows the different kinds of thinking that one needs to use in questioning/answering. Out of the types of questioning, “open-ended” questions are significant, because they make students “think more” (Aysha, Interview I). However, as Khalil (Interview 1) discusses, open-ended questioning rarely has a place in EFL classrooms where teachers focus more on syllabus covering than allowing thinking time for 20 students.

Open-ended questions enable critical views because they demand justifications (Paul, 1990). Since students need to think analytically and critically to provide reasons, questioning drives students to think critically but they need time to do so. Moreover, as open-ended questions do not assume “one right answer” (Meyer, 1986, cited in Gaskaree et al., 2010, p.36), teachers have the responsibility of responding to student views without passing judgement. This makes questioning challenging for teachers, in addition to keeping students motivated as a big part of engaging them in dialogue. Despite the hardships, questioning remains an efficient teaching and a learning strategy (Paul, 1990), providing students with opportunities to raise voice, explore concepts, and interact socially.

The third practice of teaching involves developing critical thinking skills by focusing on the development of language skills (Zahra, Interview 1). The techniques and strategies that constructivist teachers use for developing language learning skills can drive students towards developing critical thinking skills. In EFL classes, weak students struggle with vocabulary use in their attempts to improve language skills or critical thinking. CLEs provide peer scaffolding in ZPD for students who are too conscious of their weak language skills. In CLEs, learners have the luxury of using L1 to share examples, analogies, and discussions, working in collaboration simultaneously ‘noticing’ the use of language (L1/L2) aspects that the others display. Thus, exemplifying why EFL learning considers ‘imitation’ (Vygotsky, 1978) as an effective learning strategy, the less knowledgeable peers are facilitated to notice, imitate, practise, and acquire language aspects and learning strategies that their more knowledgeable peers involuntarily model in CLEs. The underlying principle is that the development of language is the development of mind (Vygotsky, 1978), evincing the interrelationship between language and thinking. Higher mental functions develop through higher level cultural tools (Cole & Wertsch, 1996) and the most important cultural tool that develops thinking is language (Lantolf & Thorne, 2007). Vygotskian (1934) stance was that thought develops as a whole, but language develops in units. These views of the experts support Zahra’s (Interview 1) opinion that proficient L2 learners tend to think well but less proficient L2 learners begin to think well/critically (organizing their thoughts to express their views) only when their language skills develop.

Another important practice is to focus on the course books that are structured to improve the language and thinking skills through learning activities (Shana, Interview 2). However,

when teachers “just recommend” their students to complete an x number of activities from the book that their teachers are not going to look at; students are demotivated and lose the benefit that these tasks can offer (Shana and Aysha, Interview 2). Sharing this view, Richards (1990) asserts that teachers need to assign tasks for the purpose of attaining “particular learning objectives”, which actually defines the teacher’s approach to teaching, too (1990, cited in Gaskaree et al., 2010, p.39). Language learning tasks are designed for language acquisition, practice, and the enhancement of specific language aspects. They carry scaffolding aspects, serving the functions of acquiring, mediating, and constructing meanings. Hence, the opportunity to facilitate language learning in diverse ways is not fully realized, if the focus of the EFL class is only on the ‘practising’ of language acquisition, which is procedural knowledge (O’malley & Chamot, 1990). Language learning can be enriched by integrating constructivist teaching approaches, because they enhance interaction, inquiry, and meaning-making, filtering through the tools of L1 and L2.

The most effective strategy for fostering critical thinking is to use learner-centred approaches in EFL teaching (Ricardo, Interview 2). However, Ricardo adds that this will not happen because the EFL teachers will “...never go for it”. His explanation is that teachers do not change their ways of teaching. This is a concern for the present and future generations of students, because teachers need to grow, change, adapt, and evolve according to the changing needs of their students and the educational context (Al-Mahrooqi, 2015; Al-Issa, 2014). Secondly, individual teacher practices have a greater role to play in creating constructivist learning environments, including the adaptation of the role of facilitator. Knowledge of the practice, teacher motivation, and scope of work (teaching syllabi) impact individual teacher practices. Raising awareness through professional development programs, seminars, or conferences are practical solutions, but EFL teacher education courses are the primary influence that can shape constructivist teachers (Richardson, 2003). However, because teacher practices are intimately bound to the context through context-specific characteristics, learner-beliefs, educational policies, and curricula instructions to mention a few; teachers may have little choice in implementing individual practices compared to the mundane task of syllabus completion that is imposed on teachers.

To sum up, the brief discussion offers several teaching/learning strategies that promote critical thinking in EFL teaching. Though students did not overtly mention any barriers, the

idea that teachers will not change their methods of teaching is a concern for stagnation (of teachers). The first point of the student discussion included developing the aspect of critical reading in EFL classes. Critical reading enables students to identify their real-life struggles, connecting language, reading, critical thinking, and real life. Secondly, questioning has an unparalleled ability to enable the element of critical thinking by forcing students to reason. Questioning is relevant to learning because it is a method of exploring that can become a method of learning (and teaching). The third point that emerged is enhancing the focus on developing students' language skills within CLEs to promote the critical thinking skills. Furthermore, students also put forward the practical strategy of focusing clearly on the course books as a guide to develop language and thinking because the learning activities are designed to achieve specific purposes. The fifth strategy comprised adopting learner-centred teaching approaches as an EFL teaching practice. However, lack of teacher autonomy can also be a cause for lack of change from the current teacher-centred practices to learner-centred teaching due to restrictions on individual teacher empowerment.

6.1.6. Discussion of the findings of the student perspectives

The highlight of the students' arguments was that it is important to develop critical thinking skills in Omani learners because it is a skill that they need 'now' to become effective students and future employees. They argue that the changing nature of things and life in today's globalized open economy of Oman requires Omani students to be competitive, creative, and critical in serving their country and earn a living as Omani employees. In their view, these new jobs with new scopes of work that did not exist in Oman in the recent past, need new ways of thinking and critical thinking to understand the scopes of these new jobs and perform them.

In student participants' view, they need to develop critical thinking skills 'now' to be effective learners. Students clarified the need to make their daily reading-comprehension lessons into critical investigations of real-life issues. Students emphasised that though foundation EFL reading classes have more freedom to choose diverse topics for their reading class, credit classes also have the freedom to choose topics/themes that relating to the subject majors. This indicates students' awareness about the difference between the traditional passive reading activities and critical reading. The difference is that when students read critically, content is "...alive" in students' minds (Lunenburg, 2011, p.2), marking a shift

from 'passive learning to active learning' (Brooks & Brooks, 1993). It is a responsibility of the teachers/course material writers to choose stimulating topics. Teacher contribution is even more important for the success of implementing critical reading, because teacher approach, motivation, and knowledge of the practice, in addition to teacher goals are decisive factors within the process.

Indicating some of the important educational achievements of the educational sector, The MoE & The World Bank Joint Report (2013) mentions how Omani education sector has been able to help students achieve their academic and career goals, contributing towards the fulfilment of the national goals. However, the additional note to the information is that student achievement rates have been lower than satisfactory compared to the national expectations (Romanowski, 2010).

Students reason that when learning is limited often, to the single mode of rote-learning; their overall learning is also limited, making them less creative and less critical. Their argument is supported by Al-Issa (2012) who writes that even the most intelligent Omani students that exemplify excellence in learning, tend to practice rote-learning strategies within traditional teaching classrooms, because it is the only mode of learning available to them. Comparatively, as learner-centred approaches can enhance active learning opportunities, facilitating different modes of learning, scaffolding, and levels of achievement in the ZPD, learner-centred approaches provide the scope to enable learning through diverse modes, because learners are allowed the freedom to suggest, choose, and discuss learning issues with their teachers.

Therefore, adopting learner-centred teaching approaches is an effective solution allowing students to acquire knowledge of content, skills, and strategies in different ways. On the point of facilitating all learners, students discussed how less proficient Omani learners benefit especially, from CLEs where scaffolding can be enhanced to enable learning through social interaction and peer assistance. To enable learning, constructivist teachers adapt the roles of the model, the facilitator, and more knowledgeable peer, shifting from the authoritarian role of imparting knowledge from a pedestal (Richardson, 2003). It shows that the elements of learner-centred approaches genuinely focus on how knowledge is created, using the techniques of learning that promotes learning in meaningful ways.

As phenomena and situations that need critical views can arise within one's academic, professional, individual, or social environment; there is a need for students to develop the skill of noticing (the aspects to be critical about) as a habit. In light of that, critical thinking becomes a way of thinking for students to critically gaze into situations and phenomena and seek solutions. However, as Aysha and Mohammed highlighted, Omani youth rarely gets the opportunity to be critical within the socio-cultural sphere in the presence of their elders, though in students' view, critical thinking is used in the Omani society in different ways, to different extents. Students also pointed out that in general, critical thinking is not promoted in their culture, because 'critical' represents negative connotations associating with critiquing in negative ways. Bali (2015) explains that the difference is that Islamic scholarship uses phrases such as analytical thinking, rather than critical thinking, indicating a cultural incompatibility between Islamic and Western culture, where critical thinking reflects a more direct approach to critiquing though not necessarily negatively. As recent academic developments regarding the integration of critical thinking into educational aspects imply (Muscat Daily, December 2016), educational institutions have the potential to set initiatives to influence a gradual shift in contextual views about the concept.

Students' discussion showed that their teachers focus on developing the skills that are outlined by curricula and course syllabi. Therefore, incorporating the aspect of developing critical thinking as a learning goal can be an effective strategy. In line with setting initiatives through academic aspects, students have highlighted that formal education has the capacity to develop critical thinking. Furthermore, students viewed reading as the most powerful tool that can develop critical thinking in formal education. However, often, the benefits of reading that develop critical views are lost to many Omani learners, because they lack the habit of reading in their academic and personal lives. The implication is that EFL teaching approaches that integrate constructivist principles of learning as learner-centred, interactive, and collaborative approaches have greater potential to promote critical reading, contributing to foster critical thinking.

Moreover, questioning has emerged as an effective strategy that develops learners, learning, and critical thinking. In students' view, teachers need to ask 'open-ended' questions from students, so that students can 'think or talk' about the topic 'the way they like' as Aysha highlights. Open-ended questions have the capacity to elicit diverse response types and in-

depth answers that can even extend further. As responses can transform into discussions and debates, these aspects can stimulate learning not only about language use and learning content, but also real-life issues, overcoming what Pennycook (1990) refers to as ‘trivialisation of content, overemphasizing communicative competence’ (cited in Pessoa & Freitas, 2012).

It indicates that questioning is a way of teaching (Paul, 1990). There is a need for teachers to play the greater role of responding to students’ questions in a way that does not pass judgement so that students are motivated to take part in the dialogue. Teachers who focus on adapting hierarchical levels of questioning (such as the six levels of Bloom’s taxonomy) can increase the effectiveness of questioning. Consequently, by questioning their students purposefully, teachers encourage their students to raise voices, exploring diverse themes and meanings because interaction develops critical perspectives (Vygotsky, 1978).

To conclude, students’ views have raised important concerns in relation to the key themes that the five sub-research questions of this study asks. By discussing these ideas through their personal views and experiences, students have revealed broader understandings of their own realities. Though student perspectives are subjective and multiple in nature, they reveal the strengths and weaknesses of the education system of Oman, implying that what matters to them (developing critical thinking) evades them in the system. Students also highlight that as focus on the learner is a limitation of the current EFL teaching practices, integrating learner-centred approaches can benefit the weak as well as the intelligent students. In their own ways, these students have expressed that developing critical thinking is developing a way of thinking, enabling them to achieve the way of life that they wish to attain.

6.2. The analysis of the teacher perspectives

6.2.1. SUB-RESEARCH QUESTION 1

What are the key reasons that make developing critical thinking important for the Omani learners?

Two strategies were used purposely to identify the teacher views about the importance of critical thinking to Omani learners. First, teachers were asked to define critical thinking in order to raise teacher awareness of the concept. Later, they were asked about the importance

of developing critical thinking in the Omani learners. Finding out the teacher understandings about critical thinking was important because they reveal the knowledge of the teachers about the concept and the manner in which they apply their knowledge in individual practices of teaching.

6.2.1.1. Defining the concept of critical thinking

In general, all teachers (11 out of 11) offered their understandings as definitions, providing both short and elaborate definitions. 2 teachers (Kathya and Ayna, Interview 1) indicated that critical thinking comprises problem-solving, while for another teacher (Valentina, Interview 1), critical thinking represented creative thinking. On the other hand, showing a genuine interest in finding what critical thinking means, Ahmed tried to define critical thinking, using a think-aloud process:

The first thing that comes in to my mind is that it does not stop at the whole learning and teaching process or stop where the teaching material stops but rather, it is using materials to deliver information to the brain and promotes the brain to think, ...think beyond the materials, ...try to reach high stages of thinking where they evaluate and challenge materials by not accepting things as they are, not taking things for granted but questioning what is given to them as a learner, and... to me that's being critical. (Interview 1).

Ahmed shows that he is very much aware of critical thinking. Furthermore, by highlighting “evaluate...challenge materials...”, he identifies the ways that higher order thinking directs students towards critical thinking. His definition includes greater uses of critical thinking where the critique of the relationship between the reading text and meaning enables students to “put knowledge into other uses”. Since deconstruction coerces evaluation and analyses of both the content and language of a text and reading is a major component of EFL teaching; Ahmed’s definition includes one of the most effective ways of fostering critical thinking in EFL teaching. This exercise of eliciting definitions evinces that definitions guide teaching practices (Ennis, 1996a).

Experts of critical thinking share the characteristics of critical thinking that Kathya, Ayna, Valentina, and Ahmed described above. They highlight that critical thinking, unequivocally includes higher order thinking skills (Black, 2011; Johnston et al., 2011; Mulnix, 2010; Bailin et al., 1996b; Halpern, 1983; Ennis, 1996a). Since the development of higher order thinking skills is a focus of education already, centring on the development of critical thinking is equally important as it is an intellectual skill that uses higher order thinking skills (Bailin et

al., 1999b). Secondly, in expert view, integrating critical reading into EFL classes and encouraging deconstruction are more advantageous for EFL learners (Macknish, 2011; Benesch, 2009). These practices enhance critical thinking by compelling students to go beyond the text, bringing real-life issues into the EFL classrooms through which social interaction is facilitated.

‘Questioning’ is an important strategy in education that Ahmed includes also as a characteristic of critical thinking. Questioning, which is a way of teaching and learning, (Paul, 1993) helps to maintain a healthy scepticism (Scriven & Paul, 1993). Since scepticism encourages asking questions, questioning makes students practise cognitive skills of analytical thinking, reflective thinking, and critical thinking (Richardson, 2003). Interestingly, Ahmed mentions that ‘thinking continues even after teaching stops’, which in expert view, is a quality of critical thinkers as they take pride in their accomplishments, solving the problem, seeing to the end result.

In general, these 4 teachers who showed awareness of critical thinking through their brief and long definitions also link it to practical teaching implications. Deconstructing knowledge for the goal of creating further knowledge, enabling skills practice, facilitating social interaction by connecting real-life issues and reading are some of the key practices that EFL teaching can adopt. Ahmed adds that the outcome of focusing on the development of critical thinking skills and the habits of thinking brings more benefits to learners.

6.2.1.2. Qualities of critical thinkers

In many teachers’ view, the most important qualities of critical thinkers include open-mindedness and analytical thinking (Kathya, Valentina, Ayna, Interview 1). Ahmed added that ‘thinking beyond materials, challenging the content, and questioning the content’ are qualities of critical thinkers (Interview 1). However, in Norla’s view (Interview 1), these qualities are overpowered by the contextual cultural habits since Omani students tend not to question what is ‘written’ or ‘said’ by their teachers and often lack being open-minded about educational and socio-cultural environmental aspects.

Open-mindedness and analytical thinking are invaluable qualities that critical thinking depends on (Mulnix, 2010; Ennis, 1996; Paul, 1990). Teachers demonstrate their awareness of the importance of these qualities by prioritising them among the qualities. Open-mindedness contributes to developing critical views, since an open-mind is sceptical and

questions the written content rather than accepting what is written silently in the same way that Omani students often do (Norla, Interview 1). However, unless students are invited to question teacher authority and knowledge (perhaps, in a debate), the Omani students refrain from questioning their teachers. It is not “right” to do so and should one attempt it in a class, friends will “shush” the ‘unruly’ student into quiet submission (Valentina, Interview 1). On the other hand, since ‘qualities develop into habits with focus on practice’ (Kathya, Interview 1), teacher focus on the development of qualities impact positively on the development of the habits of critical thinking in learners.

6.2.1.3. Developing the habits of critical thinking

Eleven out of the eleven teacher participants agreed that they always prompt students’ thinking when they provide classroom instruction. Explaining how action words such as ‘analyse, compare, and justify’ etc. actually prompt thinking, Bailin et al. (1999b) highlight that teachers contribute to fostering the habits of thinking in learners both voluntarily and involuntarily. However, since students need to develop ‘the habit of thinking beyond classroom situations’ to be critical in their social encounters (Norla, Interview 1); there is a need to foster the habits of thinking so that students will be prompted to think critically.

6.2.1.4. Importance of developing critical thinking in Omani learners

Many Omani students are required to change their medium of learning from L1 to L2 at university level. This is challenging for the average Omani EFL learners who are not proficient EFL users (Kyle, Interview 1). Kyle adds that this transition (from L1 to L2) is responsible for students’ “...surface-level ability to process information”, springing from a lack of learning and thinking strategies, inadequate vocabulary (Valentina, Interview 1), and lack of self-confidence (Olya, Interview 1). EFL students’ surface-level-ability to process information often results from focusing on skills development (procedural knowledge) in L2/general education, compared to the opportunities that content-knowledge (declarative knowledge) education provides to seek in-depth knowledge that allows critical thinking (McPeck, 1990). This argument draws the response that skill development in general/L2 education always provides ‘something to think about’ by providing content to think critically about (Ennis, 1996a; 1987) without which skills alone cannot be developed.

Another account is that the “cognitive cost” (Manolo, Watanabe, & Sheppard, 2013) reduces EFL students’ ability to think. Explaining that less proficient L2 users spend their

cognitive strength on the technicalities of language such as punctuation, spellings, and grammar, Manolo et al. discuss how these aspects reduce the capacity to process information and think logically (and analytically/ critically). In Halpern's (1983) view, these are legitimate issues that the field of EFL teaching needs to address. Emphasising that critical thinking can enable students to close the critical gaps in learning, Halpern explains how the diverse thinking skills (that critical thinking comprises) enable students to reflect on their own strengths and weaknesses. Hence, as the major skill that drives students to 'think about their own thinking', meta-cognitive skills enhance students' ability to compare, analyse, identify gaps, and seek/implement solutions in overcoming the learning gaps.

As a major reason for developing critical thinking in Omani students, Ahmed stresses that "...university students' success depends on their ability to think critically" (Interview 1). Explaining further, Thakur & Al-Mahrooqi (2015), Al-Issa (2012), Mehta & Al-Mahrouqi (2014), Lunenburg (2011), and Mulnix (2010) have stated that (Omani) students need to make independent decisions, think logically, and solve complex problems, arising from content-learning and the society. A key to encouraging students to use their cognitive skills in problem-solving includes the reduction of the habit of 'hundred-percent-memorising' (Al-Issa, 2012) because memorisation enables routine-responses, preventing the need for higher thinking skills. Developing critical thinking can be effective in reducing rote-learning habits, because when students focus on 'how' to think, they develop the habit of thinking, rather than memorising the 'what' of thinking (Paul, 1990).

Since critical thinking is not a single skill but it involves a range of diverse skills, abilities, and dispositions, fostering critical thinking in education benefits students vastly. For instance, the ability to express one's own opinion is an important element of being critical (Valentina, Interview 1). Therefore, since fostering critical thinking involves encouraging one's voice, the reticent Omani EFL learners profit simultaneously. Expression of opinion is a crucial skill for Omani students. While many reasons inhibit Omani learners from speaking, in the EFL classes, less proficient EFL learners are reluctant to expose their poor language skills to the teachers, peers, and especially, to the opposite gender. Hence, less proficient EFL learners find the 'face-saving strategy' (Saville-Troike, 1989) of not talking in their L2 classes. Moreover, voicing one's opinion even within the academic sphere is not easy for the Omani learners, because power relations and social hierarchies are diluted within the social

learning environments, abstractly demarcating the existing social inequalities (Hofstead, 2001). As power relations reflect on one's self-esteem (Lave & Wenger (1991), the average Omani student remains silent to avoid conflict situations that may arise from social interaction. Students who use their cognitive skills to evaluate, anticipate, make effective decisions, and voice their opinions about their predicaments will solve their problems while the others act on the acquired behaviour, i.e. the routine response.

In addition, as Ahmed (Interview 1) highlights, the potential, product-driven, wealth-oriented future economies employ only the individuals that can think strategically for the benefit of these organisations. The implication is that employers are becoming increasingly interested in choosing employees who can be company assets, possessing the "21st century skills" (Stuart & Dahm, 1999) to solve the 21st century problems. This means, the traditional routine responses may not suffice to address those diverse and complex challenges of the innovative 21st century jobs (Geisinger, 2016) and the complex social issues, indicating the power relations. Hence, developing critical thinking skills in education becomes a compelling solution that contributes to developing effective ways of thinking.

In sum, an outcome of defining critical thinking was that 4 out of 11 teachers showed that they are keenly aware of critical thinking. On the other hand, since 7 teachers were unclear about what critical thinking means or the skills that critical thinking entails, the need to raise awareness of it as an important educational skill emerged. As teachers integrate the nuances of their knowledge into their teaching, lack of awareness of critical thinking can have a major impact on such an integration. Hence, the shift from L1 to L2 as the medium of learning can be challenging for the average EFL learners, leaving them with inadequate information processing skills. Moreover, focusing on the skills development and the concept of cognitive cost that reduces students' thinking abilities are two reasons that reinforce the need to fostering critical thinking in EFL teaching. Thus, developing reflective skills and meta-cognitive skills that enable L2 learners to identify/ address their own learning gaps emerge as a potential solution. Another significant reason is that university students' ability to think critically is a key skill for their educational and professional success as Ahmed highlighted. In light of that, developing critical thinking that encompasses a range of higher thinking skills, abilities, and qualities, is an advantage for the Omani university students.

6.2.2. SUB-RESEARCH QUESTION 2

Whether/in what ways do current EFL teaching practices contribute to develop critical thinking in learners?

In many teachers' (8 out of 11) view, current EFL teaching practices distance students from critical thinking rather than engage them in thinking. Ayna (Interview 1) emphasised that,

...at least 60% of the time, what we see in SQU is the traditional master-pupil relationship...maybe a bit less rigid from our ancient times. You would think after all, after learning about communicative teaching methods, teachers would feel obliged to use these learner-centred approaches...I don't think I have really seen a classroom with... at least 20% student-centred teaching, here in SQU.

Ayna offers the argument that neither the experienced expatriate teachers nor the graduates of SQU teacher education courses who study learner-centred education as a teaching methodology, seem to integrate learner-centred teaching practices. Sharing Ayna's view (unknown to Ayna), Malika, Kyle, and Toby (Interview 1) agreed that there is less focus on learner-centred teaching within the current teaching practices at SQU. In these 3 teachers' view, the current EFL teaching practices at SQU, largely include recommending a set of learning activities from the student course books, waiting for students to complete the tasks (often individually), and then eliciting answers as teacher-class discussions. Malika (Interview 1) adds that in her experiences, EFL teachers often instruct their students to complete the learning tasks individually than as teams in order to control class/noisy behaviour.

Since individual task completion shares more characteristics of traditional teaching than learner-centred teaching, the important practices of interactive learning, collaborative learning, scaffolding through peer discussions, and knowledge-construction, leading to critical thinking are not centred within classroom teaching (Richardson, 2003; Brooks & Brooks, 1993). Less focus on learner-centred teaching implies a lack of regard for the 'good practice' that the LC (FPEL document, 2011-2012) and MoE (2006) acknowledge and recommend. Affirming, Lunenburg (2011) and Richardson (2003) emphasise that when the key principles of learner-centred teaching are overlooked, learning is disabled rather than enabled.

Indicating a reason for lack of integration of learner-centred teaching practices, Toby (Interview 1) mentions that, "...even if teachers are interested in making their lessons interesting and learner-centred, they simply can't afford to do so because... they have to finish the syllabi". Discussing how teachers are stressed about balancing focus on syllabus completion and meaningful teaching, Kyle (Interview 1) says that continued focus on syllabus completion deprives students of "breathing time". Breathing time is important for learners to process information as acquired knowledge to transform the 'input' into the 'output' as the 'monitor hypothesis' indicates (Krashen, 1980). Students need time to reflect on their experiences to understand concepts, and assimilate new knowledge into their existing schemata, as accommodating the new knowledge (Piaget, 1970); so that thinking can take place. Since processing time can vary according to individual factors that include intelligence, schemata, information processing power, receptivity, and L2 language proficiency etc., students can be overwhelmed and confused by the overloading of information, without the 'processing time'.

Moreover, Damian (Interview 1) mentions that there is a "...general disregard of the context" about Western concepts such as critical thinking, implying that critical thinking may neither be embedded in contextual beliefs, traditions, capabilities, and languages, nor an expectation of the abilities, skills, or views of the citizens. Hence, the general implication is that critical thinking is not prioritised in the 'sense-making toolkit' (Brunner, 1996) that culture provides for the people. Hence, in Damian's view, such a lack of focus on fostering critical aspects in learners can leave them "...deficient in these skills at university level" (Damian, Interview 1). While Damian offers a logical argument, the emerging change of attitude towards developing critical thinking shows that cultural attitudes change with time (Ennis, 1998). By maintaining supplementary academic arguments for fostering critical thinking within the education context of Oman, some of the prominent scholars of Oman (Tuzlukova et al., 2016; Mehta & Al-Mahrouqi, 2012) are influencing changes in the academic sphere.

To sum up, 4 out of 11 teachers mention that integration of learner-centred approaches into the current teacher practices is overlooked in the context of SQU. The specific individual teacher practice of recommending individual task completion (distancing themselves as the more knowledgeable peer) while students complete the learning tasks individually evinces a lack of regard for any interactive or collaborative learning that contribute to foster critical

thinking in learners. Furthermore, EFL teachers may be less interested in integrating learner-centred practices or allowing ‘processing time’ for their learners because syllabus completion has become a priority for many (Toby, Interview 1). Consequently, insufficient time to process information may impact negatively on learners, adding confusion, and affecting the outcomes of learning. Moreover, since critical thinking is not embedded within the contextual beliefs and practices, it is also not reflected as an expectation of learning, limiting attention to critical thinking within the educational context. These key factors epitomise that current EFL teaching practices in the context of education are less concerned about fostering critical thinking.

6.2.3.SUB-RESEARCH QUESTION 3

What are the ways that constructivist teaching, centring the perspectives of CHAT, can contribute to the developing of critical thinking?

“CLEs facilitate the incorporation of socio-cultural and economic concerns into classroom learning through discussion which enables critical views. This is important, but... developing critical thinking is not so simple even in learner-centred teaching” (Ahmed, Interview 2). Ahmed identifies a key contribution of learner-centred teaching, simultaneously highlighting the complex nature of this goal. When social interaction is facilitated in CLEs, teachers and students have the freedom to share their real-life experiences to enrich discussions (Brooks & Brooks, 1993). CLEs are adept at promoting interaction because students shed their inhibitions about language issues, focusing on the content of the exchange.

Ahmed’s stance on the challenges of learner-centred approaches is shared by Richardson (2003) who discusses that developing critical thinking is not at all a simple affair because it involves integrating diverse and “...complex elements of knowledges and skills and personal and sociocultural, economic, and political expectations of a country into teaching materials and integrating effective teaching strategies to address those expectations” (p.1628). Richardson implies that teaching critical thinking includes not only the incorporation of educational elements into teaching, but also requires teachers’ ability to incorporate their knowledge of the practice and critical thinking to enable learners to make sense of their own sociocultural environments.

Though all teachers (11 out of 11) agreed that learner-centred education reflects constructivist teaching, only a small number of teachers (Kyle, Malika, and Kathya, Interview 2) included some of the core concepts of constructivism in their discussions. For instance, Kyle referred to “collaborative learning” and Kathya and Malika brought up “scaffolding” in their discussions. Moreover, Malika also made her view central to this study by saying that “...if we are to integrate constructivist teaching approaches, we should focus on facilitating our students so that they understand things by themselves” (Interview 2). Malika’s meaningful comment exemplifies how teachers and their learners benefit from raising teacher awareness of the key constructs of education, including the constructivist teaching practices. The primary benefit is that teacher beliefs influence their practices (Borg, 2003) and vice versa, benefiting students.

Clearly, raising teacher awareness is an effective step that contributes to addressing some of the key teaching difficulties in fostering critical thinking in the context of Oman. Teachers need to be proficient at integrating acquired knowledge (through awareness raising), using their knowledge of the context, their learners, and of their own practices in solving the problems that arise within classroom/contextual teaching. On the other hand, some of the other practices such as,

- (a) developing educational policies in order to incorporate effective teaching strategies into syllabi and course books,
- (b) facilitating teacher forums at institutional/national level,
- (c) encouraging informal teacher-peer groups within the LC,
- (d) encouraging institutional professional development sessions, seminars and online seminars, and
- (e) pursuing higher education can help to ameliorate and even prevent many teaching difficulties.

In Kyle’s (Interview 2) view, students make strong efforts to solve problems when they work together. Therefore, as a main goal of EFL teaching, social interaction that also promotes collaborative learning brings more advantages to EFL learners than the individual learning practices that traditional teaching promotes (Interview 2). Though individual attempts at learning tasks are important; they detach students from engaging in constructivist learning environments (CLEs) since peer-scaffolding and social construction of knowledge is excluded there. When students are not working together in a language learning classroom, they are deprived of the use of ‘the powerful cultural artefact of language’ (Lantolf &

Thorne, 2007). As language is also the highest thinking tool; language use in social interaction is the key to developing 'language' and 'mind', which develop simultaneously, developing each other (Vygotsky, 1979).

Moreover, a glance at the collaborative learning process shows that interactive/collaborative learning links between social interaction and internalization, as students' learning occurs first at the social level which is 'interpsychological', transferring later to the personal level that is 'intrapsychological' (Vygotsky, 1979). This transition occurs through innerspeech and when understanding shifts towards the individual level. This process activates the higher mental functions, enabling language and thinking transforming one's understanding/knowledge creation. Hence, as it is with the others' help that students learn to solve problems, activate higher mental functions, develop thinking by developing language, and create knowledge socially; learner-centred teaching matter to the process of learning and thinking.

In relation to teacher knowledge about the key constructs of constructivist principles of teaching, Kathya and Malika (Interview 2) included the term, scaffolding in their individual discussions, though teaching/learning material (as scaffolding) evaded their conversations. The 2 teachers seemed to focus mainly on teacher assistance as the more knowledgeable peer because scaffolding through learning materials is a generally assumed (and established) fact in education. However, when teachers are mindful about scaffolding techniques, they maximize the benefits of scaffolding to their learners. The centrality of scaffolding to learning and the learners is unmatched in L2 teaching, because meaning-making in a foreign language depends on the effectiveness of scaffolding. As the task of helping learners to 'shift from the existing level of understanding to the next level of understanding' rests on scaffolding (Lantolf & Thorne, 2007), developing teacher understanding of diverse scaffolding modes and techniques is essential for EFL teachers to enable learning, fostering critical thinking.

ESL teachers need to be culturally sensitive since EFL is a foreign language and students may be dealing with two different views (L1 and L2) of the world (Ayna and Valentina, Interview 2). When teachers are culturally sensitive, they can understand the struggles of a second language learner. In Ayna's (Interview 2) view, without cultural sensitivity, teachers may easily mistake their students' lack of language fluency for 'insolence'. She points out

that, for instance, Omani students would often say “teacher, I want to see my marks...”, instead of “teacher, can I please see my marks...?”. Ayna explains that ‘I want to see my marks’ can appear rude, especially, to native English speaker-teachers, who are sensitive to social politeness in discourse (Valentina, Interview 2). Omani students continue to use the phrase ‘I want...’ because in Arabic, the basic form of requesting for something would be “*anna ireed* (I want)” and “*luwsamahththi*” (please) is an additional word that Omani may or may not use, depending on one’s social upbringing (Ayna, Interview 2). She points out that she cannot imagine, for example, the mountain tribes who live in the desert, using the word “*lawsamahththi*” (please) in their daily communication.

As Ayna and Valentina exemplify, being sensitive to cultural differences is important in EFL teaching because cultural influences affect teaching and learning. Constructivist teaching, deriving from the perspectives of CHAT, accommodates cultural sensitivity, compared to a traditional teaching classroom where teachers may not make an effort to learn about their learners or their cultural differences. CHAT places a special significance on culture, highlighting how the role of culture influences and shapes the development of individuals (Vygotsky, 1979). Translating this belief, constructivist teachers, embracing the existence of multiple truths; treat their learners as individuals who have different knowledges and as not empty vessels (Kaufmaan, 2004; Richardson, 2003). Therefore, cultural sensitivity is a significant element that affects learning especially, in EFL teaching where two cultures meet. EFL teaching can promote cultural sensitivity by including teaching/learning material that prioritise cultural sensitivities.

To sum up, in general, 8 out of the 11 teacher participants were optimistic about the centrality of learner-centred approaches to developing critical thinking within EFL education. However, developing critical thinking is a challenging task even though learner-centred approaches are used (Ahmed, Interview 2). The primary reason is because socio-political and cultural expectations of a country that are integrated into teaching material demand, addressing them through effective teaching (Richardson, 2003).

On the other hand, as contemporary research studies evince (Mehta & Al-Mahrouqi, 2014; Shirkhani & Fahim, 2011; Snyder & Snyder, 2008), principles of constructivist teaching provide unwavering evidence of enabling learning. Therefore, as Malika’s (Interview 2) meaningful interpretation of learner-centred teaching demonstrates; when teachers are

knowledgeable about the key constructs of learner-centred approaches, they become constructivist teachers that follow the constructivist principles for the benefit of their learners. Hence, enabling teacher beliefs by raising awareness is central to developing good practice in teachers (Borg, 2003).

Thirdly, collaborative learning in CLEs promote learning. Since EFL teaching focuses on promoting interaction, creating CLEs is central, encouraging language use. Students are less inclined to interact and create knowledges, using both L1 and L2 as higher thinking tools when they work in isolation.

Scaffolding is the term used for the assistance made available to learners within the ZPD during problem solving. The diverse types of scaffolding used in education includes teaching/learning material, pre-designed learning tasks with specified learning goals and outcomes, and peers (of the learners) in social interaction. Thus, in order to provide effective scaffolding (when/where students need) teachers need to have a repertoire of scaffolding techniques, making teacher knowledge about scaffolding vital to enabling learning and fostering thinking.

Finally, cultural sensitivity is an important idea in EFL teaching where the world is seen through two different lenses. Since constructivist teaching centres the Vygotskian (1979) notion that culture shapes and develops individuals, awareness about cultural sensitivity is an in-built feature of learner-centred approaches. Kaufmaan (2004) further highlights that in order to accommodate cultural sensitivity, constructivist teachers invest in learning about their learners. This brief teacher discussion centres on how constructivist principles that derive from the perspectives of CHAT, contribute to enhance learning and foster critical thinking within EFL teaching.

6.2.4. SUB-RESEARCH QUESTION 4

What are the out-of-classroom contextual elements that can contribute to develop critical thinking in EFL learners?

Oman has undergone many stages of socio-economic and political transformations in its desire to meet the modern living standards, indicating that modern Oman integrates critical aspects as well as providing opportunities to develop critical views (Ahmed, Interview 1). Since such changes (socio-economic, political) can cause modifications to education also, as Kathya (Interview 1) points out, technology plays a large role in Omani people's daily lives

today, “driving Omani students towards media and technological innovations...” (Interview 1). Kathya adds that students’ interest in technology can be directed in meaningful ways that contribute to foster critical thinking skills. She suggests that encouraging students to choose academic projects that centre technology and out-of-classroom environments lures creative and critical thinking.

Similarly, when students are invited to participate in the “...decision-making of classroom projects, homework assignments, and learning responsibilities”, they are involved in problem-solving (Ayna, Interview 1). Students need to accomplish these goals largely in collaboration with their peers in and out-of-the class environments, making social interaction the key to solving problems, using critical thinking skills.

Highlighting that “discussions make people critical”, Norla (Interview 1) says that by creating opportunities that promote “critical dialogue outside the academic environments”, teachers can encourage their students to think critically since expressing one’s view is an important part of social gatherings. This makes social gatherings a primary source that makes students ‘notice, imitate, and acquire’ language aspects, thinking strategies, and behavioural patterns (Richardson, 2003). However, arranging for social events/occasions with the underlying purpose of fostering critical dialogue can be challenging for teachers, because critical evaluation of social or personal aspects in public is often considered an ‘attack’ on the traditions, cultures, and people (Norla, Interview 1). Therefore, initiating a tradition of critical dialogue within the intimate social circle seems a practical solution (with optional teacher involvement), because the immediate family/members of a close social circle are less inclined to be threatened by one’s critique than the public in general.

To sum up, when teachers involve students in decision-making, students develop intellectual and physical skills (EFL reading and writing skills). Choosing project topics, deciding homework, or helping friends (peers) with their academic work can contribute to enhance the academic and social skills (interaction) of students. These suggestions support the view that constructivist teaching practices are effective in shaping students’ interests into important learning experiences that promote critical thinking. These teacher suggestions especially, share the characteristic of promoting learning autonomy, making them vital in developing students’ critical awareness in and outside the academic environments.

6.2.5. SUB-RESEARCH QUESTION 5

What are the key teaching/learning practices and strategies that contribute to developing critical thinking in EFL teaching and what, if any, are the barriers for their effective implementation?

Teaching instruction in learner-centred classrooms are remarkably adept at fostering critical thinking (Toby and Zakia, Interview 1). Teachers who are masters of their practices and have knowledge of their learners, deliver instruction using their good judgement. They use many strategies to ensure that the instructions are understood by their learners. For instance, they use questioning to teach (content/skill) and also check students' understandings. Similarly, EFL teachers often elicit task-instruction from their students to verify their understandings (Toby, Interview 1), in addition to monitoring and guiding students towards the desired path/s of knowledge construction (Zakia, Interview 1). In short, the day-to-day teaching strategies that EFL teachers use 'overtly' in classroom-teaching can be effective in fostering critical thinking as much as any expert instruction designed to develop critical thinking. However, a key to ensuring 'the critical aspect' in teacher instruction is teacher awareness of the goal and the outcome of the instruction (Brooks & Brooks, 1993). Therefore, centring on the development of critical thinking in classroom teaching can be effective in achieving the goal of fostering critical thinking in learners.

Secondly, 11 out of 11 teachers chose questioning as the most significant mode of fostering critical thinking. Justifying their choice, teachers pointed out that questioning is a method of teaching, enabling teachers to teach and students to learn (Damian, Toby, Kathya, Valentina, Interview 1). Hence, questioning is a tool to propel both teachers and learners to think critically. Experts of critical thinking view questioning as a fundamental mode that contributes to fostering critical thinking, in addition to enabling teaching and learning (Mulnix, 2010; Barnett, 1997; Lunenberg, 2010; Paul, 1993; Airasian & Walsh, 1997; Ennis, 1985). Asking 'how' and 'why' enables individuals to recognise, perceive, and distinguish between truths, which makes questioning a primary mode of developing critical views. Questioning is effective in teaching, but it is Socratic questioning that enables delving "deeper into the topic/subject" (Toby, Interview 1). When teachers reserve passing judgement on students' answers, students become motivated and begin to interact without inhibition

(Paul, 1993). Thus, the stimulated and unmasked minds of the learners can be drawn to think critically through questioning. In essence, the effectiveness of questioning in fostering critical thinking and learning makes it an essential element of teaching, learning, and fostering critical thinking.

The third important practice is incorporating learner-centred teaching approaches into EFL teaching (Ahmed, Kyle, Malika, Kathya, and Norla, Interview 2). ‘Incorporation’ is the keyword since “Omani students prefer the rigid, traditional teaching practices where teachers deliver knowledge...” because they are familiar with these practices from their schools (Ahmed, Interview 2). On the other hand, since EFL syllabi recommends incorporating group work as ‘speaking’ practice in foundation courses, and ‘group research projects’ in ESP courses; these are positive steps towards the goal of incorporating learner-centred teaching practices (Norla, Interview 2).

Though the characteristics of teacher-centred and learner-centred practices may oppose each other, the rigidity of the teacher-centred practices can be reduced by incorporating learner-centred practices. Incorporating group work, as Ahmed and Norla mention, enables focus on learners facilitates students’ meaning-making process through social interaction, grounding the Vygotskian (1979) principle that social interaction is central to creating knowledge (Lunenbergh, 2011; Larochelle et al., 2009; Richardson, 2003; and Airasian & Walsh, 1997). Moreover, ‘teachers delivering knowledge...’ implies the existence of a single truth as objective knowledge, whereas constructivist approaches interpret knowledge as subjective and multiple in meaning. They evince how beliefs about the nature of knowledge informs the practices of a paradigm (Yin, 2014; Patton, 2002). Hence, indicating their fundamental beliefs, constructivist teaching approaches promote the construction of multiple understandings of their learners. In support of multiple meaning making, constructivist teaching enables focus on learners by creating learner-centred teaching practices. As CLEs uphold interaction, the element of discovery (by providing scaffolding), and learner autonomy, CLEs make the ideal learning situations for the knowledge construction process. Since EFL teachers already integrate some of these significant practices as often as possible, if not daily, (Norla, Interview 2), raising teacher awareness about the effectiveness of constructivist teaching can inspire further integration of constructivist teaching practices.

Ahmed's view that teacher efforts to incorporate learner-centred practices are 'challenged by learners who prefer traditional teaching' is supported by Emenyeonu (2012). Discussing the integration of learner-centred teaching practices into EFL teaching in the Omani education context, Emenyeonu points out how the more traditional Omani students reject the idea of group work as a 'waste of time'. Hence, Emenyeonu recommends raising awareness of the benefits of constructivist teaching not only among teachers but also among the learners⁷.

In addition, syllabus coverage has become a stressful issue that influences teaching methods and practices for many teachers in the context (Kyle, Malika, Ayna, Ahmed, Interview 1). Discussing his own anxieties about syllabus covering, Kyle mentioned that 'questioning' comes to his mind when he opens the course/reading book in the class; but he admits that he does not act upon the thought because 'time and syllabus covering' hover in the back of his mind. While constructivist teachers find many strategies to compensate the time issues of classroom teaching; as Richardson (2007) discusses, it is not unusual for constructivist teachers to "not complete" their daily lessons as planned; knowing that the journey from the unknown to the known through inquiry can be a time-consuming affair. Therefore, teachers may adopt strategies to cover recommended teaching elements, perhaps at the expense of shortening other lessons. Richardson also adds that when teachers incorporate the element of questioning into their teaching despite the time constraints, they elevate their students through that journey.

Time is a genuine issue that is common to teachers. Time issues need to be addressed to achieve the goals of teaching, avoiding frustration. A two-pronged strategy that addresses time issues includes, identifying the key strategies/practices that reduce the classroom workload and adjusting one's personal academic/professional calendar, using the course pacing schedule. In relation to the first strategy, the time-honoured tradition of "assigning homework" (Kathya, Interview 1) is an effective solution that reduces classroom workload. However, making homework effective depends on assigning meaningful homework, and providing regular teacher feedback. Time-consuming learning activities such as report-

⁷ Emenyeonu's (2012) study was conducted in a teacher-education college in Oman. So, Emenyeonu's research students were of the same age as the SQU foundation/credit course students.

writing can be turned into interesting group assignments as homework by incorporating students' interests and sociocultural aspects simultaneously. Homework brings the advantages of peer/group collaboration, leading to scaffolding by more knowledgeable peers, sparing time for classroom instruction and learning activities.

The other strategy (of the two-pronged strategy) includes adjusting one's personal academic/professional calendar in consultation with the pacing schedule of the teaching course. Making notes of the special dates relating to: course completion, reading/writing unit completion, testing dates, special holidays, or special university/national days can help to reduce teacher anxiety about course completion. One of my own strategies is to design a rough draft of a personal syllabus based on the course syllabus. When the personally and professionally important dates are marked; they reduce the tension in relation to time management, a trifle. A second personal strategy is to keep notes about the 'completed' and 'to-be completed' items in the syllabi as personal notes. I have found that these notes add to my performance, and time management. Thirdly, I have also developed the habit of having brief 'syllabus-related discussions' with my co-teachers. These discussions raise awareness about how I fare in my course teachings, so that I can adjust my teaching accordingly.

Furthermore, developing reflective thinking is important to developing critical thinking as Malika and Kyle pointed out (Interview 2). Reflective thinking helps students to identify what is amiss when they attempt problem-solving (Ennis, 1996; Bailin et al., 1996b). Explaining the institutional measures towards this goal, Kyle says that the curriculum documents of both foundation and credit courses (designed by the LC) recommend reflective writing. Explaining that though curricula specifications include reflections on writing in course-specific projects, portfolio management, and course-specific writing activities, Kyle says that he cannot assure how successfully these tasks are carried out by teachers.

Reflective thinking skills are embedded in the day-to-day learning of EFL learners. Using diverse academic practices, teachers enable their students to intentionally focus on their experiences in relation to the objective of the learning task. Some of these practices include (a) learning tasks (to enable reflection) combining the four components of reading, writing, listening, and speaking, or (b) monologs about one's own experiences, and (c) questioning.

Affirming Malika's view, experts opine that reflective thinking skills are vital to thinking critically (Mulnix, 2010; Bailin et al., 1999b; Halpern, 1984; Ennis, 1983). By enabling students to categorise and organise own experiences and thinking; reflective thinking skills make themselves crucial to fostering critical thinking (Paul, 1990).

Developing reflective thinking is significant to students in many ways. Shelyakina (2010) who lists the reading difficulties of the less proficient EFL learners, asserts that students who are deficient in reflective skills 'need to learn how to learn'. Reflective thinking is also a form of learning (Rodgers, 2002) as students need to reflect on their experiences, relating to the learning task to make meaning. As Dewey once wrote, since experience is not fundamentally cognitive, experience must be reflected upon to seek its value (Rodgers, 2002).

Unfortunately, many Omani students at university level are familiar with some of the major reading difficulties that Shelyakina lists (Thakur & Al-Mahrooqi, 2015; Al-Busaidi & Tuzlukova, 2013; Emenyonu, 2013; Flowerdue & Miller, 2008). Identifying some of the contextual reasons that contribute to Omani students' reading problems, these same (above) context-specific research projects highlight that fostering critical thinking which contributes developing analytical and reflective thinking skills, is a great advantage for the Omani learners to overcome their learning difficulties.

In the teacher participants' (7 out of 11) view, the most significant element that contributes to fostering critical thinking in learners is their teachers. However, the effectiveness of the teachers is affiliated with their knowledge about critical thinking. Clarifying the point, Ahmed (Interview 2) says, in order to teach their students how to think critically, "...teachers need to know how critical thinking develops". Since knowledge of critical thinking includes knowledge of the approaches, techniques, and strategies; there is a great need to develop teacher knowledge of the strategies and approaches. Ahmed also points out that unfortunately, for many teachers, instruction regarding their own development "...needs to come from the top as directives" because it is the contextual practice (Interview 1). While Ahmed's view extends a limitation to teachers' character, directives that guide integration of strategies and approaches can strengthen teacher focus on fostering critical thinking.

Teachers are not only the simple providers of instruction. They are expected to have sufficient, if not expert, knowledge of what they teach, adding depth and substance to their instruction. They also need to have a repertoire of teaching methodologies, which enables them to apply appropriate learning methods and strategies in their classroom teaching. Teacher beliefs about the nature of knowledge contribute to form their methodologies (and vice versa), affecting their personal teaching stances which makes them good teachers. However, good teachers can become great teachers when they invest in learning about their students to know their learners as individuals who possess different knowledges, skills, and attitudes. When teachers are motivated to foster critical thinking in their learners as a goal, it personifies them. Hence, in addition to their explicit instruction in classroom teaching, beliefs of their practices, their tacit knowledges, skills, dispositions, and the determination influence their practices, guiding towards their goal, which in the case of this research, reflects developing critical thinking in learners.

While 8 teachers (out of 11) were optimistic about the effectiveness of constructivist teaching approaches in fostering critical thinking, 3 teachers (Olya, Toby, and Damian, Interview 1) were sceptical about it. In Olya's (Interview 1) view, grand concepts like critical thinking and constructivism are overrated in the ESL world. Olya exemplifies that being sceptical is a positive aspect, showing that sceptical teachers are inclined to inquire before accepting beliefs blindly. Sharing the view, Ennis (1996) opines that being sceptical is a disposition that sustains intellectual curiosity, leading to critical thinking.

On the other hand, scepticism can also imply a lack of belief, contributing to a lack of effectiveness in teacher practices. Beliefs of a practice play a significant role especially, in the novice teachers' professional lives. For, novice teachers enter their professions with foundations of beliefs that they acquire from teacher education. Integrating those beliefs with their knowledge of the world; they enhance the created knowledges through reflective practice, evincing the significant role of teacher beliefs (Borg, 2011).

6.3. The discussion of the findings of teacher analysis

Defining critical thinking is important to understanding what critical thinking means. While all the teachers (11 out of 11) offered their views of critical thinking, only a few teachers (4 out of 11) have attempted deeper understandings. On the other hand, evincing that a definition of critical thinking enables an in-depth understanding of it, one of the teachers (Ahmed, Interview 1) has been able to capture the qualities, habits, and the essence of critical thinking in a meaningful definition. Genuinely interested in seeking the embedded meanings, he used a think-aloud process and reflective thinking to define critical thinking. Demonstrating his own criticality, Ahmed acknowledged that (a) ‘reflective thinking’, (b) a ‘genuine interest’ in seeking knowledge, i.e. ‘intellectual curiosity’ (Paul, 1993), (c) ‘background knowledge’ (Black, 2008; Ennis, 1996; Bailin et al., 1996b), and (d) an effective technique (think-aloud protocol) as an individual strategy have been the central elements that helped him to achieve his own goal of defining critical thinking. Overall, the different definitions and the teacher attempts to define critical thinking show that critical thinking is a more implicit concept for EFL teachers.

Secondly, the teacher discussion shows that developing critical thinking is important for the Omani learners for many reasons. They include: academic, professional, and social significance. In 8 teachers' views (8 out of 11), Omani learners show an urgent need for fostering critical thinking in education because they are worried that many EFL learners demonstrate a surface-level ability to process information even at the university level (Kyle, Interview 1). Apart from the diverse individual and contextual factors that can negatively affect language learning and thinking, the 'shift from L1 to L2 at university level causes struggles' (Emenyonu, 2012) with 'vocabulary issues' (Valentina, Interview 1), leading to a lack of reading proficiency and understanding in reading classes, and deficiencies of writing technicalities (Manolo et al., 2013). Furthermore, as 'university students' success depends on their critical thinking skills' (Ahmed, Interview 1), they need to develop diverse thinking skills, including problem-solving, reflective thinking, and critical thinking skills (Thakur & Al-Mahrooqi, 2015; Al-Issa, 2012; Mehta & Al-Mahrouqi, 2012; Lunenburg, 2011; and Mulnix, 2010). In light of these studies, since insufficient language skills lead to inadequate thinking abilities; contextual concerns about Omani learners' lack of academic achievements have raised concerns (Romano & Seeger (2014).

Developing critical thinking can bring social advantages for the Omani learners since expressing one's voice is one of the major elements of critical thinking (Ennis (1996b). Therefore, fostering critical thinking in education can benefit the less proficient EFL learners who are self-conscious and evade class participation in learning activities (Valentina, Interview 1). In general, Omani students' awareness about the social 'power relations' (Hofstead, 2001) and their own (and perhaps, weak) language skills may prevent them from expressing their views, compelling them to adopt reticence as a 'face-saving strategy' (Saville-Troike, 1989) which affect their ability to think critically. As Ahmed (Interview 1) pointed out, gaining professional advantages is equally important for the Omani learners since the wealth-oriented contemporary economies seek strategic and critical thinkers to satisfy the 'innovative needs of the 21st century jobs' (Ahmed, Interview 1; Tuzlukova at al., 2017; Geisinger, 2016; Stuart & Dahm, 1999).

Teacher responses to the second sub-research question indicate that developing critical thinking receives apathetic attention from the current EFL teaching practices. EFL teachers' inclination to recommend individual task practice in a language learning class (Ayna, Interview 1) seems to divert them from facilitating students' meaning making process through social interaction in CLEs. Consequently, less knowledgeable peers are barred from receiving the scaffolding that the more knowledgeable peers can provide in the ZPD, indicating that learning is 'disabled rather than enabled' (Lunenburg, 2011; Richardson, 2003). Learning is often hampered when students are not given enough time to process the new information that they receive in classes since teachers are focused on syllabus completion (Kyle, Interview 1) than allowing 'processing time' for their students. EFL students who are trying to make sense in a new language need time to 'process the input' (Krashen, 1981), 'assimilate and accommodate the new information' (Piaget, 1972), and 'internalise the new knowledges' (Vygotsky, 1979). Since individual understandings do not occur without students' internalisation of knowledge, the development of language and thinking is not promoted.

Critical thinking has not become a priority in EFL education as the context has a "...general disregard" about critical thinking (Damian, Interview 1). Aligning with the cultural-historical stance of the context, critical thinking is seen neither as a social representation nor as an academic expectation. However, since the emerging socio-economic changes that are influenced by global entrepreneurship demand critical standards in academic and professional endeavours; far-sighted scholars have proffered influential arguments for positive social attitudes towards developing critical thinking in the context (Tuzlukova et al., 2016; Mehta & Al-Mahrouqi, 2014).

Responding to the third sub-research question, teachers reveal that they are familiar with constructivist teaching practices though they may not implement these practices always. Teaching instruction is an effective tool in fostering critical thinking in learners (Toby, Interview 1). Hence, integrating focus on developing critical thinking with the existing learning objectives and outcomes of learning can contribute to enhance learning (and teaching). Secondly, questioning is the most influential strategy that enables critical views,

according to all teacher participants because questioning drives both learners and teachers to think critically. Asking ‘why’ and ‘how’ inspires analytical (reasoning) and reflective thinking (Thakur & Al-Mahrooqi, 2015; Mulnix, 2010; Hager, 2005; and Ennis, 1996b), but deeper understandings are enabled through ‘Socratic questioning’ (Paul, 1993) where the more knowledgeable peer (teacher) helps the less knowledgeable peers (students) in their journey of knowledge construction. Clearly, the integration of learner-centred approaches to the existing teaching practices influences the development of critical thinking in the Omani learners positively (Ahmed, Kyle, and Norla, Interview 2).

Teachers’ views (Ahmed, Malika, Kyle, Interview 2) reveal that the challenges to implementing constructivist teaching elements share many of the challenges to developing critical thinking in learners. EFL students’ preference for teacher-centred teaching influences them to reject learner-centred approaches (Ahmed, Interview 1) as a ‘waste of class time’ (Emenyeonu, 2012). Moreover, teacher inclination to focus on syllabus completion can cause teachers to neglect learner-centred practices and questioning, which are time-consuming practices despite their ability to foster critical thinking (Kyle, Malika, Ayna, and Ahmed, Interview 1). Providing several effective time-saving solutions; teacher discussion mentions that teacher, learner, and contextual dynamics play large roles in implementing effective teaching approaches that lead to fostering critical thinking in the context.

In relation to the fourth sub-research question, teachers offered specific teaching/learning strategies that combine academic and social aspects. These strategies were inherently effective since they show the potential to be launched simultaneously with the current teaching practices, developing learner autonomy as an outcome. Hence, their effectiveness ensures them a place within the recommendations. Out-of-classroom elements, comprising social, economic, and political aspects can influence not only the fostering of critical thinking but also learning in different ways. A balanced education system designs its core structure in ways that integrate the contextual elements as parts of learners’ development. In light of that, an education system that expands the learning opportunities, integrating the contextual aspects is bound to reap benefits without compromising the national and institutional goals and the needs of the learners.

With their responses to the fifth sub-research question about the effective teaching practices that promote critical thinking, teachers have provided greater insight into how some of the chosen EFL teaching practices can propel students to think critically. To begin with, teacher instruction can be made an effective tool in fostering critical thinking by incorporating the aspect of critical awareness into instruction. Teacher focus on the objectives and outcomes of the specific learning activities are important to making teacher instruction critical. Secondly, questioning has been identified as a key practice that promotes critical thinking because asking ‘why and how’, for example, raises analytical and critical thinking. Socratic questioning has the power to reach the depths of knowledge, enabling critical views. Therefore, questioning is also a mode of teaching and learning. However, as an effective practice, incorporating learner-centred teaching is vital in order to implement the key teaching strategies that centre learners. Furthermore, teachers (Malika and Kyle, Interview 2) emphasised that developing reflective thinking leads to developing critical thinking. Reflective thinking is vital to EFL learners as L2 learners need to ‘learn how to learn’ (Shelyakina, 2010) by focusing on their own experiences while learning an L2/EFL. Research reveals that Omani EFL learners often possess inadequate reading, language, and thinking skills because they lack reflective thinking skills (Thakur & Al-Mahrooqi, 2015; Al-Busaidi & Tuzlukova, 2013; Flowerdue & Miller, 2008).

The most significant element that contributes to develop critical thinking in learners is their teachers (Ahmed, Interview 2). However, teacher effectiveness depends on their knowledge of the practice, including ‘knowledge how’ and ‘knowledge that’ about critical thinking (Riley, 1938, cited in Johnston et al., 2011, p.76-79). When teachers take time to know their learners, teachers are able to provide the right kind of scaffolding according to individual needs, indicating that motivated teachers take extra measures to foster critical thinking in their learners. On the other hand, sceptical teachers can also be effective teachers because they do not take things for granted as Olya, Toby, and Damian (Interview 1) displayed through their own demeanours. Their efforts to find out truths become the disposition that drives them as individuals to think critically (Ennis, 1996). However, since scepticism can also imply a lack of beliefs, sceptical teachers have a responsibility to enlighten themselves because beliefs inform practices (Borg, 2011).

Moreover, though these practices are not new to the context, their successful implementation is not without challenges. Lack of time for conducting questioning sessions, the meaning-making processes in CLEs, and discuss critical views within the teaching/learning practices while balancing syllabus completion, raise greater concerns among teachers. Furthermore, teachers' habit of waiting for institutional circulars to develop their own knowledge of the strategies and approaches can reflect indifference towards developing critical thinking in their students. On the other hand, institutional directives can contribute to the harmony of teacher practices, making directives a positive feature. Teacher discussion has offered several solutions to the issues of time and syllabus coverage. These solutions substantiate their effectiveness as they centre the overall concern that the Omani students favour teacher-centred approaches in the present context.

In sum, a closer look at the teacher discussion shows that effective teaching practices that contribute to fostering critical thinking are already embedded deeply within the educational practices. Uncovering them can become second nature to teachers who are aware of their own practices and motivated to fostering critical thinking in their learners. Hence, raising teacher awareness of the need to fostering critical thinking and approaches/strategies to do so can compel teachers to focus on this goal overtly, in addition to the implicit teacher practices that already take place in the EFL classes.

6.4. Summary of chapter six

Chapter six presented the analyses and interpretations of student and teacher participant views. In the part one of chapter six, students acknowledged that the interview-dialogue has raised awareness of critical thinking in them, enhancing their understandings about its value as an educational concept. Consequently, these students imply that raised awareness of what critical thinking means, the need to be critical, knowledge of the strategies, and developing the habit(s) of critical thinking, can prompt critical thinking in individuals.

The need to foster critical thinking has risen primarily from the changes that the Omani socio-economic and political landscapes compel. Students revealed an earnest wish to develop critical thinking as ways of learning and thinking. Admitting that they are sceptical about the contributions of the current EFL teaching practices towards fostering critical thinking, students expressed their appreciation for the learner-centred approaches, interactive learning, and scaffolding. Justifying these preferences, they explained that CLEs compensate

for the limited social opportunities that Omani students get (to be critical) outside the classroom for expressing and questioning.

Within part two that included teacher participants' views, Omani learners need to develop critical thinking skills to achieve academic, social, and professional success. Many Omani EFL students' inadequate language and thinking skills contribute to creating learning gaps, making them less proficient students who withdraw from academic participation. One of the effective strategies that has emerged from the teacher discussion includes 'developing reflective thinking and analytical thinking', leading to fostering meta-cognitive skills. Developing meta-cognitive skills is central to students as these skills enable students to self-analyse their own strengths and weaknesses, contributing to closing the learning gaps (Halpern, 1983). The need to equip Omani students with critical thinking is synonymous with the need to equip them with the 21st century skills in order to prepare them for the innovative 21st century careers. Since self-expression as voicing one's own view is a part of job performance, enhancing the skill of self-expression is central to Omani students' professional success.

L2 teaching loses its value without an intense focus on enabling target language use through social interaction. Hence, a good language class prioritises features such as sufficient 'processing time' that enhances language learning, contributing to develop thinking. Other beneficial constructivist teaching practices include 'questioning and integrating learner-centred teaching practices into the existing practices', involving the Vygotskian (1979) principles of CLEs, scaffolding, teacher cultural sensitivity, and internalisation of knowledge. Moreover, teachers and teaching instruction as tools in fostering critical thinking need to be prioritised among the practices (and elements) that contribute to fostering critical thinking.

Issues about time, increased teacher focus on syllabus coverage, and insufficient teacher knowledge of the teaching strategies (of critical thinking) are some of the challenges that teacher discussion addresses, providing several solutions at the same time. Highlighting the advantages of incorporating the socio-cultural and learner needs to promote L2 learning, teacher discussion identifies how institutional/contextual flexibility can be a stepping-stone for the initiation/incorporation of the important teaching practices that foster critical thinking in the Omani learners.

The discussion prompts the question of whether Omani students' existing attitude about their teachers as 'the dominant figures in classroom' will change as a result of the constructivist teacher role as the facilitators within the learner-centred teaching practices. Clearly, both students and teachers raise the idea that critical thinking is a way of teaching that enables students to challenge their own and the others' unclear assumptions, beliefs, and practices. Critical thinking gives students the right tools to function in a world where increasing complexities need to make sense academically and professionally.

Chapter Seven: Conclusions

7.1. Introduction to chapter seven

As the final chapter of this study, chapter seven begins with the conclusions that remain subject to the researcher's own experiences, interpretations of participant views, and the review of literature. The summary of findings answers the main research question, forming teaching implications at the same time. The main research question of this study comprises the three main themes of 'teacher role, student role, and effective EFL teaching practices that contribute to fostering critical thinking in Omani learners'. Therefore, the main research question is answered under these three themes, evaluating the stakeholder views gained through the five sub-research questions (p.20). This chapter also includes the limitations of the research and recommendations for future research, followed by researcher reflections.

7.2. Summary of findings and implications for practice: answering the main research question

This research argues for developing critical thinking in Omani learners, centring the purpose of developing them into successful learners and competent 21st century professionals who think critically. Towards accomplishing this goal, this study attempts to identify the ways that EFL teaching can develop critical thinking in learners at university level in the context of Oman.

Therefore, the main research question of this study asks:

What are the ways that EFL teaching, within the perspectives of CHAT, can develop critical thinking in students at university level in the context of Oman? Within that,

- i. What is the teacher role in the constructivist EFL classroom in developing critical thinking?
- ii. What comprises the learner role in the constructivist EFL classroom in developing critical thinking in students?
- iii. What are some of the effective teaching/learning practices that contribute to developing critical thinking in learners in EFL education?

The view that education grounds cultural meanings (Vygotsky, 1979), making the fostering of critical thinking a cultural affair as much as it is an educational endeavour (Bailin et al., 1999b) underpins this study. This view has compelled a closer look at the contextual

position regarding the development of critical thinking in EFL education. Subsequently, acknowledging that there is a lack of focus on critical thinking in the educational sphere, including EFL education, participants believe that this is largely due to the influence of the contextual cultural meanings. In light of that, participants endorse Vygotskian stance (p.22), sharing the view of recent context-specific research (Thakur & Al-Mahrooqi, 2015, Mehta & Al-Mahrouqi, 2014; Al-Busaidi, 2005). Grounding this awareness, this study attempts to establish the need to foster critical thinking in Omani students through EFL teaching, substantiating this claim through the perspectives of CHAT, the literature review, and the discussion of the findings of this research.

In participants' view, several academic, social, and professional reasons demand fostering critical thinking in Omani learners. As Omani EFL students change their medium of learning from L1 to L2 at university level, many of the low proficient L2 learners may be limited by their 'surface-level ability to process information' (Kyle, Interview 1). Consequently, they may adopt rote-learning strategies as coping mechanisms to avoid deep thinking (Al-Issa, 2014). Secondly, in both teacher and learner participants' view, Omani students rarely get social opportunities to express their opinion within their existing socio-cultural environments, though expressing opinion is a vital mode that develop one's critical views. Similarly, in the academic context, students who are self-conscious and mindful about the 'social hierarchies and power and gender relations' (Hofstead, 2001) prefer teacher-centred approaches to avoid speaking in a foreign language in front of their peers. These contextual characteristics that are common and already detrimental to many learners can augment depending on 'individual learner differences', preventing many students from engaging in thinking critically (Johnston et al., 2011).

In light of these disadvantages, this study suggests that creating constructivist classroom environments (CLEs) can be an effective solution because less proficient learners can be scaffolded in CLEs through both explicit and implicit teaching/learning strategies, including (a) involuntary modelling of thinking by more knowledgeable peers, (b) the use of L1 with peers, and (c) providing opportunities for stress-free interaction.

Supporting the stance of the study, participants share the view that EFL teaching provides necessary affordances through the 'teacher role, learner role, and the key teaching practices that can be enabled in CLEs'. Consequently, participants assert that the development of the

higher thinking skills, including reflective thinking, analytical thinking, and meta-cognitive skills, forms an effective approach that contribute to fostering critical thinking which is consistent with the expert view (Mehta & Al-Mahrouqi, 2014; Johnston et al., 2011; Lunenburg, 2011; Mulnix, 2010; Paul, 2007; Barnett, 1997; Ennis, 1996; and Halpern, 2001; 1983). Undoubtedly, by enabling students to achieve their goals of learning, critical thinking becomes a way of thinking that helps students to achieve the lives that they hope for.

These higher thinking skills are key components of critical thinking, propelling learners to use diverse thinking skills to develop critical thinking. In particular, analytical thinking is important for students as it enables the power to reason (Kurfiss, 1998; Paul, 1993) while reflective thinking skills compel students to regulate their own behaviours by evaluating their own practices (Mehta & Al-Mahrouqi, 2014; Ennis, 1996). Meta-cognitive skills enable students to ‘think about their own thinking’ (Halpern, 2000; 1983). Meta-cognitive skills prompt students to be proficient learners who are aware of ‘planning, monitoring, evaluating, and revising one’s own thinking process’, and ‘how’ and ‘when’ to use their learning strategies appropriately (Johnson et al., 2010). In short, developing these key thinking skills equals learning how to learn (Shelyakina, 2015, Al-Mahrouqi, 2015). These higher thinking skills activate ‘a range of cognitive processing skills’ (Kurfiss, 1998), enabling learning; contributing to fostering critical thinking. Clearly, developing critical thinking as a way of thinking/learning is facilitated when learners are introduced to a way that actually grounds critical thinking as a way of learning.

Enriching the approach, participants further mention key teaching/learning strategies that are central to fostering critical thinking in students. They extracted these strategies from their real-life academic experiences by reflecting on their own practices. Emerging from both the teacher and student discussions, these strategies depict consistency, triangulating each other. They will be discussed under the teaching implications, below.

Teacher participants agreed that they always encourage the habits of thinking within EFL classroom teaching tacitly as well as overtly. Recognising this teacher stance, Bailin et al. (1996b) have emphasised how the action words that teachers use in classroom teaching are more meaningful to students, prompting them to ‘analyse, compare, and justify’. Moreover, engaging students in extracurricular activities outside the classroom is equally important to encourage the habits of critical thinking as extended classroom instruction.

Both teacher and student participants asserted that EFL teachers in the research context focus on developing the skills that are included in syllabi (Kyle and Aysha, Interview 1). Therefore, incorporating instruction on developing critical thinking into existing curricula and syllabi can be an effective solution to enable focus on fostering critical thinking skills. In response to this need, Ennis (1998) proposes two rational approaches. One of the approaches is to introduce/integrate the concept of critical thinking partially by identifying contextual assumptions. This is a compelling solution that the current context of education can adopt, amidst the contextual cultural assumptions that tend to distance critical thinking. Ennis' second suggestion is to use a combination approach that infuses and immerses students in learning critical thinking. This approach is more advantageous since EFL teaching centres developing general and thinking skills through diverse learning activities (Ennis, 1989).

Many students mentioned that EFL classrooms provide limited or no opportunities for social interaction, despite the fact that absence of social interaction among learners defies the purpose of a language learning classroom. Consequently, participants suggested the need to integrate learner-centred teaching practices that centre interaction as a fitting strategy (Aysha, Mohammed, Malika, and Ayna, Interview 2). As the highest cultural tool (Lantolf & Thorne, 2007), language is central to developing the individual since the development of language is interrelated to the development of mind (Vygotsky, 1979). Hence, creating CLEs in order to facilitate interaction is an advantage in EFL teaching because L2 learning is largely 'acquisition learning' (Krashen, 1981). CLEs provide the opportunity for more knowledgeable peer/s (teacher/proficient L2 learners) to guide the learners' process of mediating thought through not only one but two of the highest cultural tools, developing thinking and developing critical thinking.

By offering both concise and comprehensive definitions, participants have demonstrated the importance of understanding what critical thinking means, as definitions provide insight into the elements of critical thinking (Ennis, 1987). Defining critical thinking raises awareness of the practical implications for teaching and learning. When teachers are unable to define what critical thinking means, they are often unable to concentrate on developing critical thinking (Paul, 1990). Similarly, when students are able to define critical thinking, they tend to activate their meta-cognitive skills and reflective thinking effectively when they are engaged in decision-making and problem-solving activities (Mehta & Al-Mahrouqi,

2014). Therefore, defining critical thinking in a context-appropriate manner is central to developing critical thinking in a context where cultural meanings accompany individual meaning making.

The findings of this research have compelled a closer look at the centrality of the teacher role in fostering critical thinking in learners within EFL classroom/teaching that embrace learner-centred approaches as the following section reveals.

i. Teacher role in the Omani EFL constructivist classroom in developing critical thinking

- Teacher role becomes more effective when teachers are aware of how their students benefit from learner centred approaches. This means they need to be aware of the principles of constructivist teaching approaches. Consequently, constructivist teachers allow their students more freedom to interact in the classroom, knowing that teacher-student and student-student interactions are the key aspects to constructing knowledge, enabling learning. Encouraging social interaction within classroom teaching is a shift from the traditional teacher-centred practices to learner-centred teaching. This shift reflects the change in the teacher's view to knowledge, i.e. knowledge being objective/subjective, indicating that teacher beliefs about the nature of knowledge shape their teaching (Borg, 2003).
- Constructivist EFL teachers enable active learning in their classrooms, thereby activating students' thinking skills. Hence, they drive their students to think critically (Ahmed, Kathya, Malika, Kyle, Interview 1). As the findings of this research indicate, teachers who are aware of the need to foster critical thinking skills use open-ended questioning as an effective mode that promotes active learning; leading to meaningful classroom interaction, enabling learning. They use questioning as a teaching method to stimulate their students' cognitive skills, including analytical thinking, reflective thinking, and meta-cognitive skills. These skills have been recognised as the key components of critical thinking (Ennis, 1996). In light of that, constructivist teachers who use open-ended questioning as a way of teaching enable: active learning, stimulating their learners to think critically.
- Teachers addressed the issues that mar the learner-centred practices in order to facilitate their implementation. As participants revealed (Khalil, Kyle, Ahmed, Interview 1), EFL

teachers in the context of research often, tend to avoid learner-centred teaching practices, because of time constraints. Raising awareness about diverse time-saving issues that can motivate EFL teachers to implement learner-centred practices, despite time issues; some of the suggested time-saving strategies include (a) assigning homework, (b) introducing out-of-class projects, (c) creating individual teacher timetables (based on the institutional timetables), (d) prioritising specific modes/contents of teaching where necessary, compensating time from other aspects of teaching, and (e) keeping in touch with parallel class teachers about pacing schedules. In addition, professional development programs, workshops, and conferences are effective ways of promoting/sharing time-saving strategies and individual techniques.

- Teachers have a responsibility to become motivated practitioners as their own goals and interests relate to what they achieve in classroom teaching (Schiefele, 2017). They become ‘goal-oriented teachers’ rather than ‘work-avoidance teachers’ when they are motivated to teach, indicating that teacher motivation is a deciding factor in students’ motivation levels. The findings of this study imply that only the motivated teachers attempt to enhance their own knowledge about the best practices (Ahmed and Malika, Interview 1), engage their learners in CLEs (Malika, Kathya, Interview 2), and boldly take time-consuming journeys in search of knowledge (Ahmed and Malika, Interview 1; Richardson, 2006; Paul, 1990), inspiring their students to become critical thinkers.
- Constructivist teachers fulfil their teacher role by making the learning content, learning goals, and learning outcomes more relevant to their learners within classroom instruction. While curricula/syllabi recommendations are effective in regulating these aspects, teachers have an opportunity to make learning more meaningful to their students by encouraging them to link real-life experiences and learning. Implementing learner-centred practices that include knowledge construction through questioning, peer interaction, critical reading, and creating CLEs are some of the key aspects within the process. When teachers join their students’ knowledge construction process and make the content relevant; they can find out their students’ strengths and weaknesses in order to help students to achieve their learning goals. By making learning more relevant to their learners; teachers increase students’ motivation and encourage active participation in learning without which developing critical thinking can be challenging.

- Empowering their learners is a part of the constructivist teacher role. When teachers acknowledge their students' strengths and praise them; teachers empower their learners, inspiring autonomous learning. Consequently, when students are confident in making decisions about their own learning; they begin to think critically because decision-making involves the cognitive skills of analytical thinking, implying logic/reasoning, reflective thinking, meta-cognition, and critical thinking.
- Constructivist teachers care about providing scaffolding to their learners in the most suitable ways to facilitate and encourage their learning. Though learning materials provide well-designed scaffolding in different ways, teachers who have invested in learning about their students' strengths and weaknesses are in a better position to scaffold their learners efficiently. As 'the more knowledgeable other', teachers may use diverse forms of scaffolding. They are adept at (a) modelling 'how' to think rather than 'what' to think (Paul, 1993), (b) orienting their students to notice (the phenomena/situations that need critical views), (c) providing more than one example in clarifying phenomena, and (d) enabling scaffolding within ZPD to reach the 'next level' of understanding/knowledge building (Lantolf & Thorne, 2007). Constructivist teachers show their knowledge of the practice, good judgement, and how much they care about the development of their learners by withdrawing assistance subsequently, so that students continue constructing knowledge by themselves.

ii. The learner role in the Omani EFL constructivist classroom in developing critical thinking

- Students need to be active learners. When they are the centre of the learning environment; they construct knowledge actively by interacting with peers as participants indicated that less stress, L1 use, less classroom attention, and peer scaffolding (Aysha, Interview 1) help learners. Student participant discussion (Mohanned; Shana; and Aysha, Interview 2) implied how the average EFL Omani learners need to find more effective and new ways of learning; contrary to the passive and rote-learning practices that they are used to in teacher-centred classrooms.
- Constructivist learners participate in classroom dialogue, expressing their views. They acknowledge the centrality of questioning to make themselves active and think critically.

- Students need to realise that creating knowledge is a responsibility of the learners. Therefore, to act upon it, students need peer assistance and collaborative efforts, contrary to the traditional teacher-centred practice of limiting classroom interaction.
- With guidance from ‘the more knowledgeable peer’, students need to bring their personal and real-life experiences to the classroom, enabling a critical view to their own socio-cultural and economic issues which reflects the extension of critical thinking beyond classroom (Ahmed, Kathya, Interview 1; Macknish, 2011; Freire, 1971/1996).
- Students have the responsibility of becoming autonomous learners. Since constructivist teachers involve their students in the decision-making processes within learner-centred practices, students have greater opportunities to develop into learners who are conscious about their learning process in critical ways.

iii. Teaching/learning practices that contribute to developing critical thinking in learners in the Omani EFL classrooms at university level.

- EFL reading has a higher capacity to develop critical perspectives but students should be given opportunities to “...argue with the text” rather than “just read” in order to develop critical thinking (Shana, Interview 1). It implies the integration of different kinds of knowledges (knowledge that, knowledge how, knowledge of the language, p.48). Critical reading contributes to develop critical thinking by activating and maximising the use of higher thinking skills in classroom learning.
- Institutional acknowledgement in fostering critical thinking is encouraging for both teachers and the Omani learners in a context where its culture values a rigid social structure (Ahmed, Mohammed, Aysha, and Ayna, Interview 2). Since in-house material writing/ student handbook, curricula, and syllabi are influenced by institutional stances; institutional flexibility is vital to incorporating the practices that foster critical thinking.
- EFL teachers who depend on institutional recommendations than contextual interpretations strengthen teacher and student interests in integrating the concept into classroom teaching/learning practices. Creating CLEs is a key element in developing critical thinking in students because interactions between teacher-student and student-student are central to the learning process (Malika, Interview 1; Lunenburg, 2011; Richardson, 2006; Vygotsky, 1978). As CLEs provide students with opportunities to seek

intellectual stimulation and physical peer support and learning without being judged or exposed; CLEs compel collaborative learning.

- When EFL teachers possess a diverse range of effective instructional strategies/techniques that contribute to fostering critical thinking in education, teaching is facilitated. Some of these effective practices include:
 1. Socratic method of questioning (Paul, 1983),
 2. Problem-mapping (van Gelder, 2009) and mind-mapping (Kathya, Interview 1), enabling critical reasoning,
 3. Reflective thinking which inspires alternative thinking (Ennis, 1999),
 4. Enabling students to ‘notice’ situations/phenomena by (a) emphasising, (b) highlighting, and (c) presenting the ideas more than once, in order for them to be critical about specific aspects (Bailin et al., 1999b; also my reflections),
 5. Facilitating learners with sufficient thinking/learning time (Kyle, Interview 1) as ‘processing time’ (Krashen, 1983),
 6. Teaching for transfer (Halpern, 1984), using specific strategies, such as developing the habit of asking ‘why’ (enabling reasoning) rather than ‘what’ (can be prescriptive, enabling memorisation) (Ahmed, Interview 1),
 7. Encouraging critical dialogue as classroom discussions, linking students’ real-life experiences (Ahmed, Interview 1; Macknish, 2011; Freire, 1970),
 8. EFL reading classrooms have the advantage of transforming the average reading material into critical reading activities because discourse enables critical views (Valentina, Interview 1; Macknish, 2011),
 9. EFL teaching provides greater opportunities to encouraging students to voice their opinion (Valentina, Interview 1), using classroom discussions, CLEs, scaffolding, and critical dialogue,
 10. Research and writing classes have the potential for fostering students’ analytical thinking and reflective skills (Kyle Interview 1),
 11. Constructivist EFL teachers have the good practice of taking every opportunity presented to them for fostering critical thinking and learner autonomy (Ahmed, Interview 1). Teachers who aware of their students’ achievements and strengths,

praise and boost their students' confidence, driving them towards learner autonomy (Ali, Interview 2).

12. Implementing strategic scaffolding by teachers (Kyle and Kathya, Interview 2),
13. Offering insightful analogies (my reflections) in order to developing reflective and analytical thinking, leading to critical thinking,
14. Providing more than one example to enhance students' understanding (my reflections),
15. Using action words such as 'analyse, compare, reflect, and think about' in classroom teaching to enable learners to activate higher thinking skills and develop the habit of using these thinking skills upon association of similar content/activity (Bailin et al., 1999b; my reflections),
16. Focusing on the development of 'analytical thinking, reflective thinking, and meta-cognitive skills' through specifically designed tasks and scaffolding techniques (Kathya, Malika, and Kyle, Interview 2; Bailin et al., 1996b; Al-Mahrooqi, 2015; Black, 2008; 1999b; Mehta & Al-Mahrouqi, 2014; and my reflections),
17. Being aware of students' sociocultural and contextual meanings towards developing critical thinking (Norla, Interview 2; and my reflections).
18. Instruction should be made effective by forming activities that engage learners, propelling students to create own meanings (Malika, Interview 2).
19. Teacher beliefs are often rigid. Therefore, teachers need to become aware of the qualities of critical thinkers and learn to keep an open mind (Ayna, Interview 2).
20. Teachers need to focus on developing the higher order thinking skills in students through learning activities because constant practice is necessary to developing critical thinking (Kathya, Interview 1; Ennis, 1998; Paul, 1993; and my reflections).

7.3. Contributions of my research

The traditional school of thought emphasises developing critical thinking through content education (Vandenberg, 2007; McPeck, 1990). However, my study suggests an integrated approach that focuses on developing critical thinking in general and EFL education as: Mehta & Al-Mahrouqi (2014), Thakur & Al-Mahrooqi (2015), Johnston et al. (2011), Mulnix

(2010), Lunenburg (2011), Halvorsen (2005), and Ennis (1998; 1989) suggest. The suggested approach relates to the key aspects of: fostering critical thinking, using an integrated approach in EFL teaching within the perspectives that CHAT provides, in the context of Oman, where fostering critical thinking is neither a largely represented cultural value nor an expected outcome of national educational institutions currently. Therefore, this proposed approach reflects an original element.

The theoretical stance of this study stems from the Vygotskian perspectives of social constructivism that are embedded in CHAT. Grounding the perspectives of CHAT; this study attempts to demonstrate that individuals create their own understandings by engaging in social interaction (Larochelle et al., 2009; Brooks & Brooks, 1993), using the powerful cultural artefact of language. Therefore, social interaction contributes to foster the interrelationship between language and mind because the development of language influences the development of mind (Lantolf & Thorne, 2007; Michelle & Myles, 1989). Hence, language teaching has a higher capacity for developing critical thinking. This research strives to establish the theoretical stance and its outcomes that are aimed at benefitting the Omani learners. Hence, my study attempts this goal through: the literature review, the discussion about the contextual characteristics, the analyses and interpretations of findings, and the recommendations of the study. Consequently, this research contributes to raising awareness about each of these phenomena, and the effectiveness of learner-centred practices in enabling learning and fostering critical thinking in EFL teaching within the Omani context of education, adding to the enrichment of existing literature.

Investigating contextual socio-cultural, and economic dispositions and assumptions, this research identifies several important teaching practices that are central to fostering critical thinking in EFL teaching in the context of research. Since these practices have emerged from teacher and student participants' real-life experiences; they are more culturally attuned. Therefore, the teaching and learning practices that this study recommends are applicable at both individual (teaching) and institutional levels and can be incorporated into the existing/future curricula.

Inspired by Ennis' (1987) definition of critical thinking, this study defines critical thinking as an intellectually sustained skill, comprising reflective, rational thinking; striving to reach justified conclusions that result from examining phenomena or situations critically.

The definition links individual intellectual achievement through the fostering of higher cognitive skills. Hence, the definition contributes to the understanding that fostering of these key cognitive skills and the other important sub-skills within learner-centred EFL practices can promote critical thinking.

Furthermore, while context-specific research (Tuzlukova et al., 2017; AlKhoudary, 2015; Thakur & Mahrooqi, 2015; Al-Issa, 2014; and Mehta & Al-Mahrouqi, 2014) contributes to strengthening the goal of integrating critical thinking into educational practices, raising awareness about the need to do so at the same time; a comprehensive and context-appropriate definition of critical thinking is yet to be raised. The adoption of a context-appropriate definition is central to the development of critical thinking as Ennis (1996a; 1987) points out, since EFL teachers need to be explicitly aware of the elements of critical thinking to engage their students in activities that promote the elements of critical thinking (Tuzlukova et al., 2017; Bailin et al., 1996b; Paul, 1990). In light of that, this study offers a definition that highlights the central aspects of critical thinking as an original contribution.

Furthermore, identifying with Bruner's (1996) famous expression that education caters to the fulfilment of social expectations; this study suggests fostering critical thinking in Omani learners to equip them with the professional skills that the innovative, 21st century jobs require. Consequently, this research hopes that developing critical thinking skills will contribute to lessen the existing contextual socio-economic issues of youth unemployment and lack of achievement of learner goals as the statement of problem of this research (p.19-20) identifies. Towards this purpose, this research offers a comprehensive body of knowledge that prompts the need to integrate fostering of critical thinking as an educational policy in the context of Oman.

7.4. Limitations of this research

Two important concerns relating to methodology and the research setting emerge from this research. My concern relating to methodology was that I was not able to include participants from language centres of the other higher education institutions in the context since the participants of my study represented SQU only. Had I invited teachers and students from other universities and colleges in Oman (both private and government) to share their professional and personal views and experiences; it would have enriched the research data, widening the research lens. On the other hand, since the LC at SQU employs both expatriate

teachers from diverse nationalities and Omani teachers from different regions of Oman; I can justify that this limitation is diminished to a large extent. This diversity of teachers enabled me to carry out random purposive sampling effectively in choosing participants.

Secondly, in relation to the research setting, limited access to institutional documents was a challenge. Since I am an expatriate researcher without Arabic reading & writing skills (I can only manage surface-level spoken Arabic), I had to use translated texts (English versions) that were made available online by the respective institutions. However, the LC and SQU policy documents (the vision & mission statements) were readily available online in English language which facilitated me immensely. On the other hand, access to national documents such as circulars and annual records from the ministry of education (MoE) were not always readily available in English. However, since some of the key documents that relate to both expatriate and local teachers had been posted online in English, I managed to refer to those documents from the MoE and MoHE websites (as the references of this study indicate). A large collection of the hard copies of MoE and MoHE documents is available in Arabic language in the Main Library of SQU.

7.5. Recommendations for future research

As the findings of this study suggest, focusing on the development of the key cognitive skills is an effective approach to fostering critical thinking. Therefore, the many issues arising in relation to the teaching and learning of this approach need to be further investigated and supported through research. Some of the key questions can include,

- i. the effective modes to raise teacher awareness about fostering critical thinking within EFL teaching practices,
- ii. the initial institutional steps to incorporating critical thinking into EFL classroom teaching at university level,
- iii. the ways that can keep teachers informed regularly (in addition to motivating them) about the effective strategies to fostering the key thinking skills, and
- iv. sharing the responsibility of designing effective learning activities that centre the development of the cognitive skills and language skills simultaneously.

Developing meta-cognitive skills (contributing to develop critical thinking) is a key focus of this research. This study suggests that meta-cognitive skills can be developed by noticing, acquiring, and practising them in CLEs through teacher modelling and guiding, suggesting

that explicit teaching can enhance the development of meta-cognitive skills (Mehta & Al-Mahrouqi, 2014; Johnston et al., 2011; Bailin et al., 1999b). Therefore, identifying and documenting (voice/video recordings) the varied meta-cognitive strategies that EFL students use/exercise can be an investment because these audio/video files can be used as motivational teaching aids.

Finally, it would also be a worthwhile effort to enhance the definition of critical thinking that this study provides.

7.6. Researcher reflections

This research is a journey that I had undertaken with my students and colleagues. The extensive reading that the research compels has enriched my teaching experiences explicitly and implicitly. This is clear to me as, for example, I find myself incorporating specific techniques that I explore in my study into my teaching.

I have also noticed that I inadvertently incorporate diverse techniques, approaches, and practices that enhance critical thinking into my regular lesson notes (and mental notes).

More importantly, I find that my awareness of developing critical thinking compels me to observe the ways that my students create knowledge, using the techniques and approaches that I recommend in my study. My observations reveal that students link the main kinds of knowledges, including ‘knowledge that’, ‘knowledge how’, and ‘knowledge of the language’, when they attempt problem-solving collaboratively in CLEs. The outcomes of these observations leave a profound impact on me, enhancing my knowledge of the practice and compelling me to be a reflective practitioner.

References

- Abrami, P., Bernard, R., Borokhovski, E., Wade, A., Surkes, M., Tamim, R., & Zhang, D. (2008) Thinking Skills and Dispositions: A Stage 1 Meta-Analysis. *Review of Educational Research*, Vol. 78(4), 1102-1134. doi:10.3102/0034654308326084
- Airasian, P. & Walsh, M. (1997) Constructivist Cautions. *Phi Delta Kappan*, Vol.2, 444-449.
- Al Belushi, A. (2004) Gender issues in teacher development: Career Choice and Commitment in Oman. *English Language Teacher Education and Development*, 8, 16-27.
- Al Busaidi, K. (1995) English in the labour market in multilingual Oman with special reference to Omani employees (Unpublished doctoral dissertation). University of Exeter, UK.
- Al Hadrami, M., & Amzat, I. (2012) Improving the Standard of English Language and Communication amongst SQU Students in Oman: Challenges and Suggestions. *International Journal of Sustainable Development*, 4(6), 55-70. Retrieved December 14, 2015 from <http://ssrn.com/abstract=2131427>
- Al-Harthi, H. (2011) Education in the Sultanate of Oman: The Conflict and the Harmony of Modernity and Traditions. In, Yong Zhao (Ed.), *Handbook of Asian Education: A Cultural Perspective*. New York: Routledge. (pp.345-361).
- Al- Hashmi, A. (2000) EFL Teachers' Practices: Reflective Teaching in Oman. *Forum*, Vol.3, 8-9. Muscat: SQU Press.
- Al-Issa, A. (2014). Constructing Grammar Instruction in the Omani ELT System: A Critical Literacy Perspective. *The Qualitative Report*, 19(52), 1-26. Retrieved September 9, 2015 from <http://nsuworks.nova.edu/tqr/vol19/iss52/2>
- Al-Issa, A., & Al Balushi, A. (2012) English Language Teaching reforms in the Sultanate of Oman: The case of theory and practice disparity. *Educational Research and Policy Practice*, 11, 141-176. doi:10.1007/s10671-011-9110-0.
- Al-Issa, A., & Al-Balushi, A. (2010) Training English Language Student Teachers to Become Reflective Teachers. *Australian Journal of Teacher Education*, 35(4), 40-64. doi: 10.14221/ajte.2010v35n4.4
- Al-Issa, A. (2005) An Ideological Discussion of the Impact of the NNESTs' English Language Knowledge on ESL Policy Implementation 'A Special Reference to the Omani Context'. *Asian EFL Journal of English Language Teaching and Research Articles*, 7(9). Retrieved June 3, 2013 from the domain of Asian EFL Journal English Language Teaching and Research Articles.

- Al-Issa, A. (2002) *An ideological and discursive analysis of English language teaching in the Sultanate of Oman* (Unpublished doctoral dissertation). University of Queensland, Australia.
- Al Jadidi, H. S. (2009) *Teaching English as a Foreign Language in Oman: An Exploration of English Language Teaching Pedagogy in Tertiary Education* (Doctoral dissertation, University of Victoria, Melbourne, Australia). Retrieved June 5, 2013 from Research Repository of Victoria University, Melbourne.
- Aljaafresh, A. & Lantolf, J. (1994) Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78(4), 465-483.
doi:10.1111/j.1540-4781.1994.tb02064.x
- Alkhabeer Capital. (2014) *GCC Budget Analysis*. (Report series). Retrieved July 10, 2014 from <http://www.alkhabeer.com/sites/default/files/Alkhabeer%20GCC%20Budget%20Analysis%20Report%20-%20English.pdf>
- AlKhoudary, Y. A. M. (2015) The Effect of Teaching Critical Thinking on Al-Buraimi University College students' Writing Skills: A Case Study. *International Journal of Applied Linguistics & English Literature*, Vol.4(6). doi:10.7575/aiac.ijalel.v.4n.6p.212
- Al Lamki, S. (2006) *The development of human resources in the Sultanate of Oman: Omanization and the role of women*. Unpublished presentation at the Sultan Qaboos Cultural Centre. Summer Institute on Oman and Gulf, Washington, D.C.
- Al Lamki, S. M. (2000) Omanization: A Three Tier Strategic Framework for Human Resource Management and Training in the Sultanate of Oman. *Journal of Comparative International Management*, Vol.3(1). Retrieved July 4, 2013 from <https://journals.lib.unb.ca/index.php/JCIM/article/view/462/771>
- Al Nofli, M. A. (2010) Perceptions of social studies of teachers about social studies goals and content areas in Oman. *European Journal of Educational Studies* Vol.2(2). Retrieved January, 2015 from https://www.researchgate.net/publication/50925913_PERCEPTIONS_OF_SOCIAL_STUDIES_TEACHERS_ABOUT_SOCIAL_STUDIES_GOALS_AND_CONTENT_AREAS_IN_OMAN
- American Council on the Teaching of Foreign Languages (2011) 21st Century Skills Map: ACTFL. Washington: Partnership for 21st Century Skills Organisation. Retrieved June, 2016 from <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011>
- Anderson, L. W. & Krathwohl, D. R. et al (Eds.) (2001) *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives*. Boston, MA: Allyn & Bacon.

- Annual Statistics Book: 2011-2012 (n.d.) Sultan Qaboos University (16th Issue). Retrieved July 3, 2013 from <http://www.squ.edu.om/Portals/0/PlanningAndStatistics/Statistic%20year%20book%202011-2012/index.html#p=21>
- Appel, G. Lantolf, J. (1994) Vygotskyan Approaches to Second Language Research. *Applied Linguistics*, Vol.18(1).
- Atkinson, D. (1997) A Critical Approach to Critical Thinking in *TESOL QUARTERLY*, Vol.31(1), 71-94.
- Atieno, O. P. (2009) An Analysis of the strengths and limitations of Qualitative and Quantitative Research Paradigms. *Problems of Education in the 21st Century*. Vol.13, 13-18. Retrieved February 7, 2017 from http://www.scientiasocialis.lt/pec/files/pdf/Atieno_Vol.13.pdf
- Avalos, B. (2000) Policies for teacher education in developing countries. *International Journal of Educational Research*, 33(5), 457-474. Retrieved October 9, 2016 from Elsevier database.
- Bailin, S., Case, R., Coombs, J., & Daniels, L. (1999b) Conceptualizing critical thinking. *Journal of Curriculum Studies*, 31(3), 285-302. doi:10.1080/002202799183133.
- Bailin, S., Case, R., Coombs, J., & Daniels, L. (1999a) Common misconceptions of critical thinking. *Journal of Curriculum Studies*, 31(3), 269-283. doi:10.1080/002202799183124.
- Baker, T.L. (1994) *Doing Social research* (2nd Ed.). New York: McGraw-Hill Inc.
- Bali, M. (2015) Critical Thinking through a Multicultural Lens: Cultural Challenges of Teaching Critical Thinking. In M. Davies and R. Barnett (eds.) *The Palgrave Handbook of Critical Thinking in Higher Education*. England: Palgrave Macmillan. (pp.317-335).
- Barnard, J. & Jacobs, R. (2007) *The Effects of a Near Versus Far Transfer of Training Approach on Trainees' Confidence to Coach Related and Unrelated Tasks*. Retrieved January 6, 2017 from <http://files.eric.ed.gov/fulltext/ED504847.pdf>
- Barnett, R. (1997) *Higher Education: A Critical Business*. Buckingham: The Society for Research into Higher Education (SRHE)/Open University Press.
- Barrett, R. C. (2011) *The Present in the Context of a Fractured Past: JSOU Report 11:5*. Retrieved June 2, 2013 from http://jsou.socom.mil/JSOU%20Publications/11-5_Oman_final.pdf
- BERA (2011) *Ethical Guidelines for Educational Research*. Retrieved March 2011, from <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2011>
- Bellah, R., Neelly, R., Madsen, p., William, M., Sullivan, A., & Tipson, S. (1985) *Habits of the Heart: Individualism and Commitment in American Life*. CA: University of California Press.

- Benesch, S. (2009) *Critical English for Academic Purposes: Theory, Politics, and Practice* (2nd Ed.). Routledge: USA.
- Black, B. (2012) *An overview of a programme of research to support the assessment of Critical Thinking*. Retrieved August 15, 2014. doi: 10.1016/j.tsc.2012.04.003
- Black, B. (2008) *Critical Thinking- A definition and taxonomy for Cambridge Assessment: supporting validity arguments about Critical Thinking assessments administered by Cambridge Assessment*. In: 34th International Association of Educational Assessment Annual Conference, September 9th September 2008, Cambridge, UK. Retrieved June 4, 2013, from <http://www.cambridgeassessment.org.uk/images/126340-critical-thinking-a-definition-and-taxonomy.pdf>
- Bimani, A. (2012) *V.C. Message*. Sultan Qaboos University home page. Retrieved October 7, 2014, from <http://www.squ.edu.om/tabid/1174/language/en-US/Default.aspx>
- Birgili, B. (2015) Creative and Critical Thinking Skills in Problem-based Learning Environments. *Journal of Gifted Education and Creativity*, 2(2), 71-80. doi:10.18200/JGEDC.2015214253
- Blunden, A. (2010). *An Interdisciplinary Theory of Activity*. Leiden, The Netherlands: Brill NV.
- Borg, S. (2003) Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, 36, 81-109. doi:10.1017/S0261444803001903.
- Bowen, G. A. (2009) Document analysis as a qualitative research method. *Qualitative Research Journal*, 9(2), 27-40. doi:10.3316/QRJ0902027
- Boyatzis, R. (1998) *Qualitative Information: Thematic Analysis and Code Development*. Thousand Oaks, CA: Sage Publications.
- Braun, V. & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3 (2), 77-101. Retrieved May 3, 2017 from <http://eprints.uwe.ac.uk/11735>
- Brookfield, S. (2012) *Teaching for Critical Thinking: Tools and Techniques to Help Students Question Their Assumptions*. San Francisco, CA: Jossey-Bass.
- Brooks, J. G. & Brooks, M. G. (1993) *In search of understanding: The case for constructivist classrooms*. Alexandria, VA: Association of Supervision and Curriculum Development Publishing.
- Bruner, J. (1996) *The Culture of Education*. Cambridge, Mass: Harvard University Press.
- Bruner, J. (1983) *Child's Talk: Learning to use language*. New York: Norton.

- Carpendale, J. M., Müller, U., & Bibok, M., (2008). Piaget's theory of cognitive development. In N. J. Salkind (Ed.), *Encyclopedia of educational psychology, Vol. 2*, 798-804. Thousand Oaks, CA: Sage Publications.
- Carr, W., & Hartnett, A. (1996) *Democracy and the Struggle for Education*. London: Cassell.
- Carr, W., & Kemmis, S. (1986) *Becoming Critical: Education, Knowledge and Action Research*. London: Falmer.
- Chalmers, D. & Volet, S. (1997) Common misconceptions about students from South-East Asia studying in Australia. *Higher Education Research & Development*, 16(1), 87-99.
- Charmaz, K. (2000) Grounded theory: Objectivist and constructivist methods. In N. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research*. Thousand Oaks, London: Sage. (pp.509-535).
- Cohen, L., Manion, L., & Morrison, K. (2000) *Research Methods in Education* (6th Ed.). London: Routledge/Falmer.
- Cole, M. & Wertsch, J. (1996) Beyond the Individual-Social Antinomy in Discussions of Piaget and Vygotsky. *Human Development*, 39, 250-256. Retrieved October 8, 2016 from <http://lhc.ucsd.edu/People/MCole/Beyond%20the%20individual-social%20antinomy.pdf>
- Collucciello, M. (1999) Relationship Between Critical Thinking Dispositions and Learning Styles. *Journal of Professional Nursing*, Vol.15(5), 294-301.
- Copleston, F. (2003) The experimentalism of John Dewey. In, F. Copleston (Ed.), *A History of Philosophy: Utilitarianism to early analytic philosophy*. London: Continuum. (pp.352-379).
- Cotter, E. M., & Sacco Tally, C. (2009). Do critical thinking exercises improve critical thinking skills? *Educational Research Quarterly*, 33(2), 3–14.
- Creswell, J. W. (2014). *Research design: qualitative quantitative and mixed methods and approaches*. Thousand Oaks, California: Sage Publications.
- Creswell, J.W. (1994) *Qualitative and quantitative methods*. Newbury Park: Sage.
- Critical Thinking Community. (2014) *Critical Thinking and Teacher Education*. Retrieved July 3, 2015 from <http://www.criticalthinking.org/pages/center-for-critical-thinking/401>
- Critical Thinking Community. (2009) *Assessing Critical Thinking*. Retrieved from <http://www.criticalthinking.org/assessment/a-model-nal-assessment-hot.cfm>
- Cruzes, D. & Sintef, T., D. (2011) *Recommended steps for Thematic Synthesis in Software Engineering*. Proceedings of the 2011 international Symposium on Empirical Software Engineering and Measurement. Pp.275-284. September 22-232011. doi: 10.1109/ESEM.2011.36
- Cummins, J., Bismilla, V., Chow, P., Giampapa, F., Cohen, S., & Leoni, L. et al. (2005). Affirming identity in multilingual classrooms. *Educational Leadership*, 63, 38-43. Retrieved March 5,

2011 from

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.9837&rep=rep1&type=pdf>

- Daniels, H., Cole, M., & Wertsch, J. (2007) *The Cambridge Companion to Vygotsky*. Cambridge: Cambridge University Press.
- Denzin, N. & Lincoln, Y.S. (2011) Introduction: the discipline and practice of qualitative research. In N.K. Denzin and Y.S. Lincoln (eds.) *The Sage Handbook of Qualitative Research* (4th ed). Thousand Oaks, CA: Sage Publications. Pp.1-25.
- Denzin, N. K., & Lincoln, Y. S. (1998). Introduction: Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research: Theories and issues* (pp. 1-34). Thousand Oaks, CA: Sage.
- Denzin, N. K. (1997) *Interpretive ethnography: Ethnographic practices for the 21st century*. Thousand Oaks, CA: Sage.
- Dewey, J. (1966/1916) *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Free Press. pp. 259–260.
- Dewey, J. (1910) *How We Think*. Boston: D.C. Heath & Co., Publishers. Retrieved July, 2012 from <https://archive.org/stream/howwethink00deweiala#page/n3/mode/1up>
- Directorate General of Civil Services. (2014) *Population: Facts and Figures Director General of Civil Services*. Retrieved July 12, 2013, from [http://www.ncsi.gov.om/NCSI_Website/PublicationAttachment/FF%20BOOK2013%20\(2\).pdf#search="expatriate economic revenue"](http://www.ncsi.gov.om/NCSI_Website/PublicationAttachment/FF%20BOOK2013%20(2).pdf#search=)
- Donato, R. (1994) Collective scaffolding in second language learning. In J. P. Lantolf and G. Appel (eds.) *Vygotskian approaches to second language research*. Norwood, NJ: Albex (pp.33-56).
- Donato, R. & MacCormick, D. (1994) A Sociocultural Perspective on Language Learning Strategies: The Role of Mediation. *The Modern Language Journal*, Vol.78(4) pp.453-464. doi:10.1111/j.1540-4781.1994.tb02063.x
- Dörnyei, Z., & Csizér, K. (1998) Ten commandments for motivating language learners: Results of an empirical study. *Language Teaching Research*, 2(3), 203-229.
- Education statistics: Data Centre. (2008) *Education: UNESCO Institute for Statistics: Oman*. Retrieved January 14, 2014, from <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>
- Ehrich, J. F. (2006) Vygotskian inner speech and the reading process. *Australian Journal of Educational & Developmental Psychology*, 6, 12-25.
- Engeström, Y., Miettinen, R., & Punmaki, R. (1999) *Perspectives on Activity Theory*. New York: Cambridge University Press.

- Emenyeonu, O. C. (2012) Student-Centered Learning in Oman: Challenges and Pitfalls. *International Journal of Learning & Development*, Vol. 2(5). doi:10.5296/ijld.v2i5.2549
- Ennis, R. H. (2014). *Twenty-One Strategies and Tactics for Teaching Critical Thinking*. Retrieved July 10, 2012, from <http://www.criticalthinking.net/howteach.html>
- Ennis, R. H. (1998) Is Critical Thinking Culturally Biased? *Teaching Philosophy*, 21(1), 15-33.
- Ennis, R. (1997) Incorporating Critical Thinking in the Curriculum: An introduction to Some Basic Issues. *Inquiry*, 16(3), 1-9. doi:10.5840/inquiryctnews199716312
- Ennis, R. H. (1996a) Critical thinking. Upper Saddle River, NJ: Prentice-Hall.
- Ennis, R. H. (1996b) Critical Thinking Dispositions: Their Nature and Assessibility (Revised). *Informal Logic*, 18(2&3), 165-182.
- Ennis, R. H. (1993) Critical Thinking Assessment: Teaching for higher education. *Theory into Practice*, 32(3), 179-186.
- Ennis, R. H. (1989). Critical Thinking and Subject Specificity: Clarification and Needed Research. *Educational Researcher*, 18(3), 4-10.
- FACTSHEET 1. (2014) *Critical Thinking: Deriving the Definition*. Retrieved August 12, 2013, from www.cambridgeassessment.org.uk.
- Fairclough, N. (2001) *Language and Power* (2nd ed.). Harlow, England: Pearson.
- Fairclough, N. (1999) *Critical Discourse Analysis*. Boston: Addison Wesley.
- Feryok, A. (2012) Activity Theory and Language Teacher Agency. *The Modern Language Journal*. Vol. 96(1), 95-107.
- Floyd, C. B. (2011) Critical thinking in a second language. *Higher Education Research & Development*, 30(3), 289-302.
- Flowerdew, J., & Miller, L. (2008) Second language listening: Theory and practice. In, J. Richards (Ed.), *Second Language Learning: Theory and Practice* (2nd ed.). Cambridge: Cambridge University Press.
- Fosnot, C. T. (1993) Learning to Teach, Teaching to Learn: The Center for Constructivist Teaching/Teacher Preparation Project, *Teaching Education*, Vol. 5(2), 69-78. Retrieved September 28, 2017 from <https://doi.org/10.1080/1047621930050206>
- Foot, K. (2014) Cultural-Historical Activity Theory: Exploring a Theory to Inform Practice and Research. Taylor & Francis knowledge base. Retrieved August 28th, from www.faculty.washington.edu/kfoot/Publications/Foof-CHAT-explored-dist-tf.pdf
- Freire, P. (1971/1996) *Pedagogy of the Oppressed*. EdD Reading List (pp.52-67). University of Sheffield, Sheffield, UK. Available from

<http://cdm15847.contentdm.oclc.org.eresources.shef.ac.uk/utills/getfile/collection/p15847coll1/id/15766>

- Garrison, J. (2009) "Dewey's Constructivism: From the Reflex Arc Concept to Social Constructivism". In L. Hickman Neubert, and K. Reich (eds.), *John Dewey Between Pragmatism & Constructivism*. (pp.84-105). New York: Fordham University Press.
- Garrison, J. (1999) John Dewey. In M. Peters, T. Besley, A. Gibbons, B. Žarnić, and P. Ghiraldelli (eds.) *The Encyclopaedia of Educational Philosophy and Theory*. Retrieved July 9, 2016 from http://eepat.net/doku.php?id=dewey_john
- Gaskaree, B., Mashhady, H., & Doust, M. (2010) Using critical thinking activities as tools to integrate language skills. *Sino-US English Teaching*. Vol.7(4).
- Geisinger, K. F. (2016) 21st Century Skills: What Are They and How Do We Assess Them? *Applied Measurement in Education*, Vol.29(4). <https://doi.org/10.1080/08957347.2016.1209207>
- Glaserfeld, E. (2002) *Radical Constructivism: A Way of Knowing and Learning*. London: RoutledgeFalmer.
- Goddard, R., & Payne, M. (2013) Criticality and the practice-based MA: an argument drawn from teaching on the Masters in Teaching and Learning (MTL). *Journal of Education for Teaching: International research and pedagogy*, 39(1), 123-135. doi:10.1080/02607476.2012.733195
- Grabe, W. & Stoller, F. (2014) Teaching reading for academic purposes. In M. Celce-Murcia, D. Brinton and M. Snow (Eds.) *Teaching English as a second or foreign language* (4th ed., pp. 189-205). Boston, MA: National Geographic Learning.
- Guba, E. & Lincoln, Y.S. (2000) Paradigmatic Controversies, Contradictions, and Emerging Confluences. In Norman K. Denzin and Yvonna Lincoln (Eds.), *Handbook of Qualitative Research*. London: Sage Publications. (pp.97-128).
- Guba, E. G. & Lincoln, Y. S. (1998). Competing paradigms in qualitative research. In N. K. Denzin and Y. S. Lincoln (Eds.). *The landscape of qualitative research: Theories and issues* (pp.195-220). Thousand Oaks, CA: Sage.
- Guba, E. & Lincoln, Y.S. (1994) Competing paradigms in qualitiave research. In N. K. Denzin & Y.S. Lincoln (eds.), *The handbook of qualitative research*. Thousand Oaks, CA: Sage. (pp.105-117).
- Guba, E. (1981) Criteria for Assessing the Trustworthiness of Naturalistic Inquiries. *Educational Communication and Technology*, 29(2), 75-91. Retrieved from Springer data base.
- Hager, P. (2005) Philosophical Accounts of Learning. *Educational Philosophy and Theory*, 37(5), 649-666.

- Halpern, D. F. (2003) The Halpern Critical Thinking Assessment (HCTA). Retrieved July 25, 2015 from <https://sites.google.com/site/dianehalperncmc//home/research/halpern-critical-thinking-assessment>
- Halpern, D. F. (1998) Teaching critical thinking for transfer across domains: Disposition, skills, structure training, and metacognitive monitoring. *American Psychologist*, 53(4), 449-455.
- Halpern, D. F. (1983) *Thought and Knowledge: An Introduction to Critical Thinking* (4th Ed.). New Jersey: Lawrence Erlbaum.
- Halvorsen (2005) Incorporating Critical Thinking ESL/EFL Development into ESL/EFL Courses. *The Internet TESL Journal*. Retrieved October 25, 2016 from <http://iteslj.org/Techniques/Halvorsen-CriticalThinking.html>
- Hofstede, G., & Minkov, M. (2012/2010) *Cultures and Organizations: Software of the Mind, Intercultural Cooperation and Its Importance for Survival*. (3rd Ed.). Retrieved July 24, 2015 from McGraw-Hill Professional data base.
- Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations*. (2nd Ed). Thousand Oaks CA: Sage.
- Issan, S. A. & Donn, G. (2014) Higher Education in Transition: Gender and Change in the Sultanate of Oman. *Research Gate, Vol.39(2)*, 173-185. Retrieved December 3, 2014 from <http://www.researchgate.net/publication/242230464>.
- Issan, S. A., Al Nabhani, H., Kazem, A., & Al-Ani, W. (2011) Omani Teachers' Attitudes towards Teaching as a Profession. *Indian Journal of Psychology and Education*, 1(1), 25-40. Retrieved December 4, 2014 from: http://www.researchgate.net/profile/Ali_Kazem/publication/270703648_Omani_Teachers'_Attitudes_/links/54b33a090cf28ebe92e2e009.pdf.
- Issan, S. A., Nariman, M., & Gomaa, M. (2003) Post Basic Education Reforms in Oman. "Case Study 16". Ministry of Education. Sultanate of Oman. *Literacy Information and Computer Education Journal*, 1(1), 19-27.
- Johnston, B., Mitchell, R., Myles, F., & Ford, P. (2011) *Developing Student Criticality in Higher Education: Undergraduate Learning in the Arts and Social Sciences*. London: Routledge/Falmer.
- Kaufmaan, D. (2004) Constructivist Issues in Language Learning and Teaching. *Annual Review of Applied Linguistics*, 24, 303-319. London: Cambridge University Press. doi:10.1017/S0267190504000121
- Khine, M. & Hayes, B. (2010) Investigating women's ways of knowing: An exploratory study in the UAE. *Issues in Educational Research, Vol.20(2)*. Retrieved from ERIC data base.

- Krashen, S. (1981) *Second Language Acquisition and Second Language Learning*. Oxford: Pergamon Press.
- Krashen, S. (1980) The theoretical and practical relevance of simple codes in second language acquisition. In R. Scarcella and S. Krashen (Eds.) *Research in Second Language Acquisition*. pp. 7-18. Rowley, Ma.: Newbury House.
- Kurfiss, J. G. (1988) *Critical Thinking: Theory, Research, Practice, and Possibilities*. "ASHE-ERIC Higher Education Report No.2" Washington D.C.: Association for the Study of Higher Education. Retrieved December 7, 2013 from <http://files.eric.ed.gov/fulltext/ED304041.pdf>
- Kvale, S. (2006) The dominance of dialogical interview research. *Qualitative Inquiry*, 12(3). Retrieved December 28, 2013 from: <http://online.sagepub.com>
- Kvale, S. (1996) *Interviews: An Introduction to Qualitative Research Interviewing*. Thousand Oaks: Sage.
- Kvale, S. (1988) To validate is to question. In S. Kvale (Ed.), *Issues of validity in qualitative research* (pp. 73-92). Lund, Sweden: Studentlitteratur.
- Kwek, S.H. (2011) *Innovation in the Classroom: Design Thinking for 21st Century Learning*. (Master's thesis). Retrieved June 3, 2017 from http://www.stanford.edu/group/redlab/cgi-bin/publications_resources.php
- Lamki, N. (2009) *The beliefs and practices related to continuous professional development of teachers of English in Oman* (Doctoral Dissertation). University of Leeds. UK. Retrieved June 3, 2015 from: <http://etheses.whiterose.ac.uk/id/eprint/2146>
- Langer, J. A. (1992) *Critical Thinking and English Language Arts Instruction*. National Research Centre on Literature Teaching and Learning, "Series 6.5". Retrieved November 6, 2012 from <http://www.albany.edu/cela/reports/langer/langercritical.pdf>.
- Lantolf, J. & Thorne, S. (2007) Sociocultural theory and second language learning. In B. van Pattern and J. Williams (Eds.), *Theories in Second Language Acquisition*. (pp.201-224). Mahwah, NJ: Lawrence Earlbaum
- Larochelle, M., Bednarz, N., & Garrison, J. (2009) *Constructivism and Education*. Edinburgh: Cambridge University Press.
- Lave, J. & Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leech, B. (2002) Asking Questions: Techniques for Semi-structured Interviews. *Cambridge Core: Political Science & Politics*. Vol.35(4). <https://doi.org/10.1017/S1049096502001129>
- Leont'ev, A. S. (1978) *Activity, Consciousness and Personality*. Retrieved June 18, 2016 from Taylor and Francis Online data base.

- Leont'ev, A. N. (1974). *The problem of activity in psychology*. *Soviet Psychology*, Vol.13(2), 4–33. Retrieved June 18, 2016 from Taylor and Francis Online data base.
- Lightbown, P. & Spada, N. (1999) *How Languages are Learned*. Oxford: Oxford University Press.
- Lincoln, Y., & Denzin, N. (2014) The Discipline and Practice of Qualitative Research, In Norman K. Denzin and Yvonna S. Lincoln (Eds.), *The SAGE Handbook of Qualitative Research* (4th Ed., pp.1-20). Thousand Oaks: SAGE.
- Lincoln, Y. S. & Guba, E. G. (2000) Paradigmatic Controversies, Contradictions and Emerging Confluences. In, Norman K. Denzin and Yvonna S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd Ed., pp.163-188). Thousand Oaks: SAGE.
- Lincoln, Y. S., & Guba, E. G. (1985) *Naturalistic Inquiry*. Newbury Park, CA: Sage.
- Lunenburg, F. (2011) Critical Thinking and Constructivism: Teaching for Improving Student Achievement. *National Forum of Teacher Education Journal*, Vol. 21(3). Retrieved January 10, 2017 from <http://nationalforum.com/Electronic%20Journal%20Volumes/Lunenburg,%20Fred%20C.%20Critical%20Thinking%20%26%20Constructivism%20V21%20N3%202011%20NFTJ.pdf>
- Macknish, C. (2011) Understanding Critical Reading in an ESL Class in Singapore. *TESOL Journal*, 2(4), 444 – 472. DOI: 10.5054/tj.2011.269747.
- Magno, C. (2010) The role of metacognitive skills in developing critical thinking. *Metacognition and Learning*, Vol. 5(2), 137-156. doi.org/10.1007/s11409-010
- Manalo, E., Watanabe, K., & Sheppard, C. (2013) Do Language Structure or Language Proficiency Affect Critical Evaluation? In, M. Knauff, M. Pauen, N. Sebanz and I. Wachsmuth (Eds.), *Proceedings of the 35th Annual Conference of the Cognitive Science Society*, 2967-2972.
- McPeck, J. E. (1990) Critical thinking and subject specificity: a reply to Ennis. *Educational Researcher*, 19(4), 10-12.
- Mehta, S. & Al-Mahrouqi, R. (2014) Can Thinking be Taught? Linking Critical Thinking and Writing in an EFL Context. *RELC Journal*, 1-14. doi:10.1177/0033688214555356
- Meredith, D. (2003). Current philosophy and practice in ESL/EFL reading education: An analysis. Retrieved June 7, 2017 from ERIC database “ED482577”.
- Mesthrie, R., Swann, J., Deumert, A., & Leap, W. (2000) *Introducing Sociolinguistics*. Edinburgh: Edinburgh University Press.
- Mitchell, R. & Myles, F. (1989) *Second Language Learning Theories*. Abingdon, Oxon: Routledge.
- Ministry of Education & The World Bank (2013) *Education in Oman: Drive for Quality*. “Joint Report, 75719v2”. Retrieved July 5, 2014, from <http://www->

wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/03/04/000356161_20130304124223/Rendered/PDF/757190ESW0v20W0ector0Report0English.pdf

Ministry of Education: Portal (2012) *Basic Education*. Retrieved July 12, 2013 from <http://home.moe.gov.om/english/>.

Ministry of Education: Portal (2010) *THE STATES' Statue: The Basic Law Constitution*. Retrieved July 12, 2013, from http://www.moe.gov.om/portal/sitebuilder/sites/eps/english/ips/Right_Menu/Sultnate_Oman/files/The_state's_statue%20the%20basic%20law_constitution.pdf

Ministry of Education (2006) *From access to success: Education for all* (The Sultanate of Oman Report 1997-2005). Retrieved July 12, 2013 from <http://home.moe.gov.om/english/index.php>

Ministry of Education (2001) *National report on the development of education in the Sultanate of Oman*. Muscat: MoE Press.

Ministry of Education (1996) *Education for All*. Muscat: MoHE Press.

Ministry of Higher Education: Portal (2012) *Academic Programs in Higher Education Institutes*. Muscat: MoHE Press.

Ministry of Higher Education (2000). *Education for All*. Muscat: MoHE Press.

Ministry of Higher Education (1996) *Higher Education in Oman*. Retrieved July 22, 2013 from <http://mohe.gov.om/InnerPage.aspx?id=FF05A79A-FBA2-4650-9C0B-BB2EC91FA894>

Ministry of Information (2014) *Oman*. Retrieved July 2, 2014 from <http://www.omaninfo.om/english/module.php?module=pages-showpage&CatID=161&ID=519>

Ministry of Information (2013) *Education Indicators: Statistical Year Book*. Retrieved July 22, 2013 from <https://www.ncsi.gov.om/Pages/NCSI.aspx>

Ministry of Information (2013) *Oman 2013-2014*. Muscat: Establishment for Press, Publication & Advertising.

Ministry of Information (2002) *Oman*. Muscat: Establishment for Press, Publication & Advertising.

Miles, M. B. & Huberman, A. M. (1994) *Qualitative Data Analysis*. Thousand Oaks, CA: Sage Publications.

Miri, B., David, B., & Uri. Z. (2007) *Purposely Teaching for the Promotion of Higher-Order Thinking Skills: A Case of Critical Thinking*. Springer Knowledge Domain. doi:10.1007/s11165-006-9029-2

Moran-Ellis et al. (2006) *Triangulation and integration: processes, claims and implications*. *Qualitative Research*, Vol.6(1), 45-59. Retrieved October 4, 2017 from Sage Publications data base.

- Morrow, S. L. (2005). Quality and Trustworthiness in Qualitative Research in Counselling Psychology. *American Psychological Association*, 52(2), 250-260. doi:10.1037/0022-0167.52.2.250
- Munari, A. (2000) *Jean Piaget* (UNESCO). Retrieved April 11, 2013, from <http://www.ibe.unesco.org/publications/ThinkersPdf/piagete.PDF> Pp.1-12.
- Mulnix, J. W. (2010) Thinking Critically about Critical Thinking. *Educational Philosophy and Theory*, 44, 464–479. doi:10.1111/j.1469-5812.2010.00673.x
- Oman's population. (2014, November 11) *Times of Oman*. Retrieved July 2014, from <http://timesofoman.com/article/43055/Oman/Oman-population-reaches-4064660>
- O'Reilly et al. (2012) Effects of Motivating Operation Manipulation on the Maintenance of Minds. *Journal of Applied Behaviour Analysis*, Vol. 45(2), 443-447. doi:10.1901/jaba.2012.45-443
- Opie, C. (2010) What is Educational Research? In, Clive Opie (Ed.), *Doing Educational Research: A Guide to First-Time Researchers*. London: SAGE.
- Oxford Business Group. (2014) *Oxford Business Group Report: Middle East*. Retrieved June 2, 2014 from <http://www.oxfordbusinessgroup.com/uae-dubai-2014>
- Patton, M. (2002) *Qualitative Research & Evaluation Methods*. Thousand Oaks, CA: Sage Publications.
- Patton, M. (1990) *Qualitative evaluation and research methods* (2nd ed.). Thousand Oaks: SAGE Publications.
- Paul, R. & Elder, L. (2006) *The Miniature Guide to Critical Thinking: Concepts and Tools*. Retrieved June 8, 2014 from https://www.criticalthinking.org/files/Concepts_Tools.pdf
- Paul, R. (1993) Critical thinking: What, why, and how? *New Directions for Community Colleges*. Retrieved September 6, 2014, from www.criticalthinking.org/about/nationalCouncil.cfm
- Paul, R. (1990) *Critical Thinking: What Every Student Needs to Survive in A Rapidly Changing World*. Retrieved September 6, 2014, from www.criticalthinking.org/about/nationalCouncil.cfm
- Pessoa, R. R. & Freitas, M. T. (2012) Challenges in Critical Language Teaching. *Tesol Quarterly*, 46(4), 753-776.
- Phillips, J. L. (1969) *Origins of Intellect: Piaget's Theory*. USA: W. H. Freeman and Company.
- Phillips D. C. (1995) The good, the bad, and the ugly: The many faces of constructivism. *Educational Researcher* 24(7), 5–12. Retrieved June 4, 2014 from <http://cepa.info/2963>
- Piaget, J. (1972) *The psychology of intelligence*. Totowa, NJ: Littlefield Adams.
- Richardson, V. (2003) Constructivist Pedagogy. *Teachers College Records*, Vol.105(9) 1623-1640.
- Rogoff, B. (1990) *Apprenticeship in Thinking. Cognitive Development in Social Context*. New York: Oxford University Press.

- Rodgers, C. (2002) Defining Reflection: Another Look at John Dewey and Reflective Thinking. *Teachers College Records*, 104(4), 842-866. Retrieved December 8, 2013 from http://www.bsp.msu.edu/uploads/files/Reading_Resources/Defining_Reflection.pdf
- Romano, J., & Seeger, L. (2014) *Rentierism and Reform: Youth Unemployment and Economic Policy in Oman*. "IMES Paper Capstone Series: Institute for Middle East Studies". Retrieved July 3, 2015 from: <https://www.gwu.edu/~imes/assets/docs/Capstone%20Papers%20-202014/Romano%20Seeger%20Capstone%20Final.pdf>.
- Romanowski, M. (2010) How Critical Thinking is taught in Qatari Independent Schools' Social Studies Classrooms: Teachers' Perspectives. *Educational Philosophy and Theory*, 42(8). doi:10.1111/j.1469-5812.2007.00379.x
- Saville-Troike, M. (1989) *The Ethnography of Communication: An Introduction* (2nd Ed.). UK: Blackwell.
- Scriven, M., & Paul, R. (1987) *Defining Critical Thinking*. The Critical Thinking Community. Retrieved January 9, 2011 from <http://www.criticalthinking.org/pages/defining-critical-thinking/766>
- Schiefele, U. (2017) Classroom management and mastery-oriented instruction as mediators of the effects of teacher motivation on student motivation. *Teaching and Teacher Education*, Vol. 64, 115-126. Retrieved May 2, 2017 from Elsevier Domain.
- Schiefele U., Schaffner E., Möller J., Wigfield A., Nolen S., Baker L. (2013) Dimensions of reading motivation and their relation to reading behavior and competence. *Reading Research Quarterly*, 47, 427–463. 10.1002/RRQ.030
- Shelyakina, O. K. (2010). *Learner perceptions of their ESL training in preparation for university reading tasks* (Master's thesis). Retrieved June 2, 2017 from <http://etd.byu.edu/collection.html>
- Shenton, A.K. (2004) Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, 22(2), 63-75. Retrieved June 2, 2017 from <https://pdfs.semanticscholar.org/452e/3393e3ecc34f913e8c49d8faf19b9f89b75d.pdf>
- Çimen, L. K. (2016) A Study on the Prediction of the Teaching Profession Attitudes by Communication Skills and Professional Motivation. *Journal of Education and Training Studies* Vol.4(11). doi:1011114/jets.v4i11.1842
- Shirkhani, S. & Fahim, M. (2011) Enhancing Critical Thinking in Foreign Language Learners. *Social and Behavioral Sciences*, 29, 111-115. doi:10.1016/j.sbspro.2011.11.214
- Sikes, P. (2004) Methodology, Procedures and Ethical Concerns. In Clive Opie (Ed.) *Doing Educational Research: A Guide to First-Time Researchers* (pp.15-32). London: SAGE.
- Smith, G. F. (2002) Thinking Skills: the question of generality. *Journal of curriculum studies*, 34(6), 656-678.

- Snyder, L. & Snyder, M. (2008) Teaching Critical Thinking and Problem-Solving Skills. *The Delta Pi Epsilon Journal*, Vol. 50(2) 90-99.
- Stein, B.S., Haynes, A. F., & Unterstein, J. (2003) *Assessing Critical Thinking Skills*. In: SACS/COC Annual Conference. Nashville, Tennessee.
- Stiftung, B. (2014) *BTI Oman Country Report*. Retrieved January 8, 2015, from http://www.btiproject.de/uploads/tx_itao_download/BTI_2014_Oman.pdf
- Strauss, A., & Corbin, J. (1990) *Basics of qualitative research*. Newbury Park, CA: SAGE.
- Stuart, L. M. & Dahm, E. (1999) *21st century skills for 21st century jobs*. Washington, DC: United States Department of Commerce.
- Sultan Qaboos University. (2014) *Statistical Yearbook: Faculty Statistics*. Retrieved July 8, 2015 from: <http://www.squ.edu.om/Portals/0/PlanningAndStatistics/Statistic%20year%20book%202010-2011/assets/book/pages/statistical%20year%20book%202011%20-%20back%20RGB.jpg>
- Sultan Qaboos University. (2013) *Strategic Plan: 2009*. Retrieved July 5, 2015 from <http://www.squ.edu.om/squ-strategic-plan-dashboard/index.html>
- Sultan Qaboos University. (2012) *HM's Speech: Highlights*. Retrieved March 8, 2013 from <http://www.squ.edu.om/tabid/7492/language/en-US/Default.aspx>
- Sultan Qaboos University (n.d.) *Vision, Mission and Objectives*. Retrieved March 8, 2013 from <http://www.squ.edu.om/About/About-SQU/Vision-Mission-Objectives>
- Syllogism (n.d.) In *CambridgeDictionaries.com* Retrieved March 9, 2017 from <http://dictionary.cambridge.org/dictionary/english/syllogism>
- Thayer-Bacon, B. (2000) *Transforming critical thinking: thinking constructively*. Retrieved December 18, 2015 from ERIC data base "ED442768".
- The Association of American Colleges and Universities. (2013) *It Takes More Than a Major: Employer Priorities for College Learning and Student Success: An Online Survey Among Employers*. Washington, DC: Hart Research Associates.
- The Language Centre Research Committee (2013) *Research Conduct and Guidelines*. Retrieved February 1, 2013 from <http://www.squ.edu.om/lc/Units/Professional-Development-and-Research/Research/Research-Documents>
- The School of Education. (2013) *Procedures for Ethical Review on Research Ethics*. University of Sheffield, UK. Retrieved November 27, 2012 from <http://www.shf.ac.uk/ris/other/gov-ethics/>The Language Centre (2010-2011) *EPEL Curriculum Document*. Retrieved March 8, 2013 from <http://www.squ.edu.om/lc/Academic-Programs/Foundation-English-Language-Program>
- The Language Centre. (2012-2013) *CELP Curriculum Document*. Retrieved March 8, 2013 from <http://www.squ.edu.om/lc/Academic-Programs/Credit-English-Language-Program>.

- Tuzlukova, V., Al-Busaidi, S., & Burns, S. L. (2017) Critical thinking in the Language Classroom: Teacher Beliefs and Methods. *Social Sciences & Humanities*. 25(2), 615-634.
- Tuzlukova, V. & Al-Busaidi, S. S. (2015) Exploring English Academic Texts on Language Education and Pedagogy: Structural, Stylistic and Lexical Features. *Theory and Practice in Language Studies*, Vol. 5(2), 255-262. doi: <http://dx.doi.org/10.17507/tpls.0502.04>
- UNESCO. (n.d.) *Education for All: Global monitoring report-2007*. Retrieved from www.efareport.unesco.org
- UNESCO Institute for Statistics, Data Centre. (2008) *Education statistics: Oman*. Retrieved from <http://stats.uis.unesco.org/unesco/ReportFolders/ReportFolders.aspx>
- UNESCO World Education Forum. (n.d.) *Education For All 2000 Assessment: Country Report Oman*. Retrieved from <http://en.unesco.org/world-education-forum-2014/>
- Vaismoradi, M., Turunen, H., Bondas, T. (2013) Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, 15, 398-405.
- Vandenberg, D. (2009) Critical Thinking about Truth in Teaching: The epistemic ethos. *Educational Philosophy and Theory*, 41(2), 155-165. doi:10.1111/j.1469-5812.2007.00393.x.
- van Gelder, T. (2005) Teaching Critical Thinking: Some Lessons from Cognitive Science. *College Teaching*, 53(1), 41-48. DOI:10.3200/CTCH.53.1.41-48
- van Teijlingen, E. & Hundley, V. (2001) The Importance of Pilot Studies. Retrieved September 3, 2017 from <http://sru.soc.surrey.ac.uk/SRU35.html>
- Vanderstraeten, R. & Biesta, G. (1995) Constructivism, Educational Research, and John Dewey. *Paideia Web base*. Retrieved, Nov. 2014, from <https://www.bu.edu/wcp/Papers/Amer/AmerVand.htm>
- van Der Veer, R. (2007) Vygotsky in Context: 1900-1935. In Harry Daniels, Michael Cole, and James Wertsch (eds.), *The Cambridge Companion to Vygotsky*. (pp.21-49).
- Vermillion, D. (1997) *Developing Critical Thinking Skills in ESP Students* Retrieved from ERIC Dissertations/Theses data base. "D424749FL025529".
- Vygotsky, L. S. (1981c) The development of higher forms of attention in childhood. In James V. Wertsch (ed.), *The concept of activity in Soviet psychology*. New York: M.E. Sharpe.
- Vygotsky, L. S. (1978) In Michael. Cole, Vera. John-Steiner, Sylvia Scriber, & Ellen Sourberman (Eds.) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, Massachusetts: Harvard University Press (Original work published in 1930).
- Vygotsky, L. S. (1934) Thought and Word. In M.I.A. Library: *Lev Vygotsky Internet Archive*, Chapter 7. Retrieved May 16, 2017 from <https://www.marxists.org/archive/vygotsky/works/words/ch07.htm>

- Vygotsky, L. S. (1931) History of the Development of the Higher Mental Functions: Chapter 6. The Development of Speech. Retrieved May 14, 2017 from <https://www.marxists.org/archive/vygotsky/works/1931/development-speech.htm>
- Wadsworth, B. (1971) *Piaget's Theory of Cognitive Development; An Introduction for Students of Psychology and Education*. New York: Longman.
- Wellington, J. (2011) *Educational Research: Contemporary Issues and Practical Approaches*. London: Continuum.
- Wertsch, J. V. (1994) The primacy of mediated action in sociocultural studies, *Mind, Culture, and Activity*, 1(4), 202-208. doi.org/10.1080/10749039409524672
- Wertsch, J. V. (2007) Mediation. In Harry Daniels, Micheal Cole, & James V. Wertsch (eds.), *The Cambridge Companion to Vygotsky* (pp.178-192).
- Wertsch, J. V., & Tulviste, P. (1992) L. S. Vygotsky and contemporary developmental psychology. *Developmental Psychology*, 28, 548-557. doi:10.1037/0012-1649.28.4.548
- Wertsch, J. (1985) *Culture, Communication and Cognition: Vygotskian Perspectives*. Cambridge University Press: London.
- Yin, R. K. (2014) *Case Study Research Design and Methods* (5th Ed) Thousand Oaks, CA: Sage.
- Yin, R. K. (2003) *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: Sage.
- Yin, R. K. (1994). *Case study research: Design and methods* (2nd ed.). Newbury Park, CA: Sage Publications.
- Zinchenko, V. P. (2007). Thought and word: The approaches of L.S. Vygotsky and G. Shpet. In H. Daniels, M. Cole & J. Wertsch, (Eds). *The Cambridge Companion to Vygotsky* (pp. 212–245). New York: Cambridge University Press.

APPENDIX 1

Sample Student Consent Form and Adult (Teacher) Consent Form

Language Centre Research Committee (LCRC) SQU



STUDENT CONSENT FORM

Researcher: Sections A & D ONLY

استمارة طالب للموافقة على المشاركة في بحث علمي
الطالب: الأجزاء (ب) و (ج)، إذا توفرت و (د) فقط

A Full title of research project: Developing critical thinking in EFL learners within the perspectives of **أ** IAT:
the case of Oman

Name and contact address of Researcher(s) establishing contact respondents:

Manouri Samarasinghe. Mobile: 00968 9274 8505 – email: satmsamarasinghe@gmail.com
Office: Room 1061, The Language Centre, SQU, Oman – telephone: 00968 2414 2134 email:
manouri@squ.edu.om

B Tick (√) as appropriate.

I confirm that I have read and understood the information sheet for the above research project and have had the opportunity to ask questions.

لا نعم
No Yes

أشـر بإشارة (√) كما يناسب.
أؤكد أنني قد قرأت وفهمت ورقة المعلومات المعدة للبحث أعلاه وتمت إتاحة الفرصة الكاملة لي لطرح الأسئلة.

I understand that participation is voluntary, and that I can withdraw at any time, without having to give reasons for my withdrawal.

لا نعم
No Yes

أعي بأن مشاركتي في البحث اختيارية وأنه يمكنني الإنسحاب في أي وقت بعد إعلام الباحث بذلك بدون الحاجة إلى إعطاء أي تفسير.

I understand that anonymized quotes of any data I provide for this research project may be used in future publications

لا نعم
No Yes

أعي أن البيانات التي سأدلي بها في هذا البحث ستستخدم لأغراض النشر العلمي شريطة الحفاظ على السرية التامة.

I understand that if I participate/not participate in the research project that my marks will NOT be affected in any way.

لا نعم
No Yes

أعي أن مشاركتي أو عدم مشاركتي في البحث لن تؤثر البتة على علاماتي الدراسية بالجامعة أو المركز سلبيًا كان أم إيجابيًا.

I agree to take part in the research study.

لا نعم
No Yes

أقر موافقتي على المشاركة في هذا البحث العلمي.

C Note for Researcher(s) establishing contact with students:

Include the following statements if applicable. If not applicable, delete them from the consent form.

لا نعم

ج

I agree to the interview or focus group being audio recorded.

No

Yes

أقر بالموافقة على التسجيل الصوتي لمقابلة البحث (فردية أم جماعية حسب طبيعة الطلب الموضح في ورقة المعلومات).

Name of Participant

اسم المشترك

Date

التاريخ

Signature التوقيع

Name of Researcher

اسم الباحث

Date

التاريخ

Signature التوقيع

If you have any ethical concerns about this study or your participation in it, please feel free to contact the Chair of the Language Centre Research Committee at the following address:

إذا كان لديك أي ملاحظات على هذا البحث أو مشاركتك فيه الرجاء الاتصال برئيس لجنة البحث العلمي بمركز اللغات على العنوان التالي:

Faisal Said Al-Maamari, PhD
Language Centre, Sultan Qaboos University
Office # 1056
Extension # 2131
Email: faisalf@squ.edu.om

الدكتور فيصل بن سعيد المعمرى
مركز اللغات
جامعة السلطان قابوس
مكتب رقم 1056
محول رقم 2131
البريد الإلكتروني:
faisalf@squ.edu.om

CONSENT FORM



Researcher: Sections A & D ONLY

Title of Research Project: Developing critical thinking in EFL learners within the perspectives of CHAT: the case of Oman

Name and contact address of Researcher(s) establishing contact respondents:

Manouri Samarasinghe (Mrs) Mobile: 00968 9274 8505 – email: satmsamarasinghe@gmail.com
Office: Room 1061, The Language Centre, SQU, Oman – telephone: 00968 2414 2134 email: manouri@squ.edu.om

Participant Identification Number for this project:

Please initial box

- 1. I confirm that I have read and understand the information sheet/letter (delete as applicable) dated *[insert date]* explaining the above research project and I have had the opportunity to ask questions about the project.
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline. *Insert contact number here of lead researcher/member of research team (as appropriate).*
- 3. I understand that my responses will be kept strictly confidential (only if true). I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.
- 4. I agree for the data collected from me to be used in future research
- 5. I agree to take part in the above research project.

Name of Participant
(or legal representative)

Date

Signature

Name of person taking consent
(if different from lead researcher)
To be signed and dated in presence of the participant

Date

Signature

Lead Researcher
To be signed and dated in presence of the participant

Date

Signature

Copies:

Once this has been signed by all parties the participant should receive a copy of the signed and dated participant consent form, the letter/pre-written script/information sheet and any other written information provided to the participants. A copy of the signed and dated consent form should be placed in the project's main record (e.g. a site file), which must be kept in a secure location.

If you have any ethical concerns about this study or your participation in it, please feel free to contact the Chair of the Language Centre Research Committee at the following address:

Faisal Said Al-Maamari, PhD
Language Centre, Sultan Qaboos University
Office # 1056
Extension # 2131
Email: faisalf@squ.edu.om

APPENDIX 2

Sample participant information sheet

Information on my Research Project

Research title: Fostering critical thinking in ESL learners in teaching and learning: the case of Oman

You are being invited to take part in the above-mentioned research project conducted by me, personally. Please take time to read the following information carefully and discuss the information with others if you wish. Please take time to decide whether or not you wish to take part.

Thank you

1. The project's purpose:

- *The background to the project:*

The education context of Oman emphasizes the need for education in order for the Omani nationals to be able to work and create their own future (His Majesty Sultan Qaboos cited in Al-Issa 2002:282; MoHE 1996; SQU Objectives 2010; Al Busaidi 2005:1). However, recent research suggest that learners fall short of their goals despite the enormous investments made in the field of education through national reforms (Al-Dhafri 2003; World Bank Report (2010), cited in Al-Issa 2012:147). In addition, it is also argued that inadequate emphasis on practicing critical thinking skills in learning contributes largely towards the situation.

- Therefore, this research attempts to examine the effectiveness of teacher practices at SQU in engaging learners in critical thinking,
- and explore other more effective measures to foster 'the concept' in learning.

2. Who else is taking part? Twelve Omani/non-Omani, male/female teachers, and twelve Omani male/female students randomly selected from Credit/Foundation programs.

3. Do you have to take part? Of course, it is entirely up to you to decide whether to participate or not in this research. And if you do decide to take part, you will be invited for an audio-recording interview.

- any time of your preference
- Venue: the Language Centre, SQU
- The method of interview: Individual and audio-recording in order to store data.

Please note that the audio recordings of the information you provide (anonymized) during this research will be used only for analysis and/ illustration of the data in professional presentations and lectures. No other use will be made of them, and no one outside the project will be allowed access to the original recordings.

4. Are there any benefits of taking part? Although there is no material benefit, by discussing this issue you would be conscious of the idea of critical thinking, so you will benefit in your teaching/learning because of your awareness.

5. Can anything go wrong for you academically/professionally in the university because of this research? No. This is a personal research project. Your grades or teaching will not be negatively affected as a result of taking part.

6. How confidential is research participation? The information that I receive from you and your consent form will be kept strictly confidential at my home. You, any of your colleagues, family, or academic supervisors will not be able to identify your opinion in any report, or publication of this

research (after I obtain my degree), because only your pseudonym is used throughout in this research.

7. **What will happen to the result of this research?** Since this research is intended to benefit the teachers/learners in Oman and at the Language Centre, after the analysis of data, I intend to make a presentation of my findings at the Language Centre (but not publish internationally until I pass my degree). I shall be happy to invite you to this event.
8. **Who is organizing and funding the research?** This research is organized and funded by me, personally.
9. **Who has ethically reviewed this project?** This research has been ethically reviewed and approved via;
 - Research Committee (2013) of the Language Centre, Sultan Qaboos University, Oman.
 - The University Research Ethics Committee (2013) at the University of Sheffield (The department of Education), United Kingdom.
 - And my research supervisor Dr Mark Payne of University of Sheffield, UK.
10. **Contact/s for further information:** Please don't hesitate to contact any of the following responsible persons, should you need further information.

Researcher: Manouri Samarasinghe, LC, SQU

Office No. 1061 - Office telephone: (2414) 2134

Home: 00968 2456 4955

Mobile: 00968 9274 8505 – email: satmsamarasinghe@gmail.com

Head of Research Committee at LC, SQU:

Dr Faisal Said Al-Maamari, LC, SQU

Office No. 1056, Telephone: 2414 2131 – email: faisalf@squ.edu.om

Thank you again!
Manouri Samarasinghe
June 20th, 2013

APPENDIX 3

Semi-structured interview questions (interviews 1 and 2)

INTERVIEW 1 QUESTIONS ABOUT DEVELOPING CRITICAL THINKING

1. In your opinion, what is the meaning of “critical thinking”?
2. What are the qualities of critical thinkers?
3. To what kind of people is critical thinking important? Why?
4. Why is critical thinking important to Omani learners?

☺ ☺ ☺

5. In your opinion, do students learn how to think critically in their EFL classes?
6. Can you give an example of a learning situation that make students think critically?
7. Are there any reasons that can stop students from thinking critically during the/these activity/activities?
8. Can u think of a specific reason why this activity successfully made students think critically?

☺ ☺ ☺

9. In your opinion, are people born with criticality or is there any other way that they can become critical?
10. How can students develop critical thinking outside the university?
11. Who should be responsible initiating the teaching of critical thinking in your country?

QUESTIONS ABOUT CONSTRUCTIVIST LEARNING APPROACHES

12. I do thank u sincerely for agreeing to participate in the second interview! During the first interview, we discussed
13. In your EFL classroom, what wud be the percentage of teacher-talk time and student-talk time?
14. What kind of activities get students to be active during teaching?
15. Can u describe your typical EFL class?
16. Do u think, at the end of your class, students feel happy about what they learned?
17. Why yes/no?
18. What kind of learning style do u prefer as a learner, like teacher teaching or any other way?
19. What are the reasons that make this style of learning better for students?
20. Is this learning activity/style practised in the class often?
21. Why yes/no?
22. How can teachers make students think better through this style of learning?
23. What should the teacher do to make students understand?
24. What should students do to learn well?
25. Can u give an example about how students can learn better using this style of learning?

APPENDIX 4

Transcription of the pilot study interview 1 and 2

Pilot interview:

Student interview: with Fahid

1	Me:	What does critical thinking mean to you?
	Fahid:	I thought and read about your topic. I think critical thinking is focusing on a specific topic, research and think about it to know, and to know the incorrect information about it.
2	Me:	In what ways can critical thinking be important to Omani students?
	Fahid:	It is important for students who are studying their materials in schools or university because when they get ideas to be innovative, and also to separate facts from opinions etc.
3	Me:	What are the kinds of skills that students need to be critical thinkers?
	Fahid:	Thinking skills like logical skills.
4	Me:	In the class, how can a student be a good critical thinker?
	Fahid:	Students should have good reading skills, listening skills, and speaking skills.
5	Me:	What about students who don't have good reading or speaking skills? Can they become critical thinkers?
	Fahid:	Yes. But it will be very slow for them because they need more help from teachers.
6	Me:	Going back to your school age, in your opinion, did u learn critical thinking in your school?
	Fahid:	Yes, but in the final year in the school. Because in grades eleven, twelve teachers asked questions that enhance our knowledge to improve us.
7	Me:	So what made you think critically when you answered those questions? What kind of questions were they?
	Fahid:	They were 'wh' questions. Because those are the ones that makes you think. I think it's good of teachers to ask such questions because they encourage students to discover answers from that subject.
8	Me:	When you answered those kind of questions, do you think you were critical in your answers?
	Fahid:	That kind of questions depend on how hard they are (about the subject matter) but I found that some of the answers I knew before from my learning, so I didn't have to think, so, I don't think I was critical every time. ... on the other hand, I'm sure I don't know those techniques of learning critical thinking.
9	Me:	To describe the quality of critical thinking, in your view: (a) are people are born with critical thinking, (b) can people learn to be critical, or (c) is there any other way to be critical?
	Fahid:	It is B. critical thinking can be learned. Students should be able to even self-teach these techniques. They can begin with simple strategies and go up to think about 8 difficult steps. To identify between facts/opinions or correct/incorrect, clarity or logic of the information.
10	Me:	How do you think students can develop critical thinking when learning in class?
	Fahid:	Students learn critical thinking when they answer teacher's questions. This is the number one strategy. It is also important for students to do reading. So they can answer questions alone so they can be critical thinking. Students should speak and listen but Omani students will not speak

in front of girls or boys, so for them, the best thing is group work in the class. Also, the books should not ask easy questions. In subjects, there are difficult books, but in English we always too easy questions.

11 **Me:** So, is there anything the university or the ministry of education can do to develop critical thinking in learners?

Fahid: Teachers should be interested in teaching critical thinking to students. Sometimes students also need to be interested because it is difficult for teachers only to teach.

11 **Me:** Are there any barriers to teaching critical thinking in Oman?

Fahid: Yes. Omani society is restricted about critical thinking or speaking. So, we (i.e. as the young) don't speak or think critical thinking too much. But nowadays, everybody must have a job. It is not easy because there are lots of graduates from SQU about one major even. So when students have good critical thinking skills, they become efficient in jobs. This is very important for Omani people now.

INTERVIEW 2 WITH FAHID

1 **Me:** I'm so very thankful that u agreed for a 2nd interview! To remind u a few important things from our last discussion, u gave:

- a wonderful definition about critical thinking (i.e. focusing on a specific topic, researching and thinking to know, and to know the incorrect information about it), and
- said that teaching critical thinking is important for the Omani students, especially to be effective students and employees.

So, the focus of our discussion today is to identify the kinds of teaching/learning strategies or activities that would contribute to develop critical thinking effectively.

In our last interview, u mentioned 2 very interesting strategies to develop critical thinking in learners. U said, "group work and asking questions" are the best ways to develop critical thinking in students.

So, do u do a lot of group work in your ESL classes?

Fahid In our class, we have a specific routine. My teacher gives a specific time to do 1- 2 activities as group work from our SHB in groups.

2 **Me:** Well, in your English language learning classroom, what is the 'teacher-talk' percentage approximately, compared to 'student-student' discussions?

Fahid It depends from teacher to teacher. Some teachers take the full class time and there are some teachers who are reasonable. I mean they give time for students to do activities like our teacher, 20-30 min.

3 **Me:** Ok. So what are the kinds of things, like activities, you do during the group work time?

Fahid May be writing or reading activities. In writing, group work is not much, because we do the brain-storming with the teacher before we start writing. But in reading or speaking, we do more group work. We also answer our course book (SHB) questions together.

4 **Me:** So, are all students interested in doing these activities?

Fahid Many students spend time in chatting and texting. Unfortunately, students also do other stuff during this time. Some students will try to get ready for quizzes or solve math questions, for example.

5 **Me:** Can you describe your typical university ESL classroom in Oman?

Fahid I think in the university, it is very very different from school. The teachers are so friendly. We can talk to teachers even in the middle of our lesson but we don't do that, except for emergency.

		Me ... I never do that but some of my friends do. Some lessons are very boring and we can see that they are boring for teachers even. So they try to finish those lessons quickly. Without telling us to finish some activities. But some teachers tell students to do these as homework. In a typical classroom, we respect our teacher and always listen carefully. Often, when we start a new lesson it is interesting because teachers ask questions and they do brain-storming. So, we like to participate. But there are some students, may be arrogant or stupid students, they don't listen to teachers and they pass with a 'C minus' may be.
6	Me:	So, in the ESL classroom that you just described, which aspect will be most helpful to the students to learn well and achieve goals?
	Fahid	If students come from private schools their grammar is always better. So they get high marks in all, reading + writing + listening + speaking + project. Is he suggesting there is no input from ESL course?
7	Me:	In your typical ESL classroom, is there any specific reason or feature that stops students from learning better?
	Fahid	I think it's because we have lots of weak students in the same class. I'm not a very intelligent student but I try very hard. So when weak students don't try, it is very difficult for the teacher to teach everybody together. She has to stop always to check they understand.
8	Me:	So, when teachers try to help the weak students, can u finish the lesson for the day?
	Fahid	Usually, we remember where we stopped the last time. So sometimes we finish many pages from the book, and sometimes we finish only some activities. Then, teacher tells what we do for the homework.
9	Me:	So, in general, what is the percentage that students talk in your ESL classroom?
	Fahid	I can't say clearly. Sometimes teachers need to finish long lessons. So we don't talk. But sometimes, when we do brain-storming and group work, students talk more. So, it can be perhaps, 40%.
10	Me:	What kind of learning style of learning do u prefer, like teacher teaching, teacher-talking or group work etc.?
	Fahid	Of course, it is group work. I think all students will prefer group work.
11	Me:	What are the specific reasons that make you prefer group work as a learning style?
	Fahid	First of all, it is the freedom to think about the task. When teachers give too much information, students don't think. When students do group work, they are responsible for the answers, so they try hard. Second reason is because it is not the traditional teaching. In the past, students never, never, never speak to the teacher, but now it has changed.
12	Me:	Can u explain what u mean by traditional teaching?
	Fahid	Traditional teaching is the old style of learning. We have more traditional teachers in schools and not so much in the university. In this teaching, teachers speak and students listen. Then, students go home and study the book again and again to answer the teacher's questions.
13	Me:	So, as u mentioned that u preferred group work, what are the disadvantages of traditional teaching to u?
	Fahid	I'm not saying traditional teaching is bad. But students don't have any freedom because students want to ask many questions from teachers or their friends. I mean questions about learning. So, the result is no critical thinking for students, for example.
14	Me:	I'm happy to know that you prefer different learning styles. Did you know that traditional teaching is called teacher-centred education? Can u guess the reason?
	Fahid	Because teacher is the centre of the attention.
15	Me:	Wow! U guessed it correctly.
		So, the other kind of teaching that uses teaching activities like group work, do not centre the teacher. This style of teaching focuses more on the student.

		Do u want to guess the name for that style of teaching?
	Fahid	Student-centred education?
16	Me:	Absolutely right! Well-done! So, wud u like to list the advantages that u as a student will have through student-centred education?
	Fahid	I think learning is different also. Because students can teach the more weak students. Teachers don't like when we speak in Arabic. But weak students can benefit when their friends explain in Arabic. I agree that we should use English vocabulary to practice more. A big advantage is the stress level. Students will be not afraid to give their opinion to small groups because it is not in front of class. Omani students are very very shy to speak in English in front of girls or boys. So, we can ask from friends if we didn't understand anything because some students will never never ask their teacher even if they didn't understand.
17	Me:	So, all the things you described are important characteristics of student-centred education. This style of teaching is influenced by a theory of knowledge called 'constructivism'. According to this theory, each student may learn in a different way and learning/ understanding is enhanced through communication with others. So, what do you think teachers should do in teaching to make students learn better?
	Fahid	This means teachers should give students the chance to learn in different ways. As I described before, group work is a great way to teach. Students can develop many skills such as communication and to solve questions.
18	Me:	In what major ways would the Omani students benefit from student-centred teaching?
	Fahid	The most important thing is they will learn critical thinking through student-centred teaching. But teachers will need to supervise their work carefully because students tend to be not interested in learning. Also, Omani students will develop skills of speaking in English, because conversation is an important aspect that make students think critically. This skill is more important for the jobs because in the job, u can't do your work alone, u have to work together. So, teaching through group work is a great way. Finally, it will may be not make us do a lot of homework. ...
19	Me:	So, is it ok to give more group work than teacher teaching more?
	Fahid	This can be arranged by teachers. Teachers can plan which activities are more important. So, students can learn these in groups.
20	Me:	Are there any barriers to engaging in student-centred education in Oman?
	Fahid	Not really. I think the only problem is we don't have time to do the group work. Our teachers always tell us to take 10 min but in 3 min, teachers tell us to give answers. We did not even finish reading, but if we don't give answers we will look like fools in the class. But if we give wrong answers, I will be ashamed about it. So, sometimes, I don't know what to do. So, I don't say anything and when I'm silent sometimes teachers don't ask too many questions. But if I know the answers I will be ready even if teacher asks someone else. ...
21	Me:	Testing is an important aspect of formal ESL education in the context in Oman. It is a measurement of skills and knowledge acquisition. In what ways can learner-centredness can be incorporated to make testing more efficient?

APPENDIX 5

A newspaper article on critical thinking (A student participant [Bishara] brought for the interview to review it during the interview)

THURSDAY

MARCH 17 | 2016

ANALYSIS

omandailyobserver 9

The diary of an Omani undergraduate...

Every Omani who has gone through the education system in Oman will remember the seemingly never-ending school lessons of Social Studies and Islamic Education, where we had to jot down whatever the teacher would write on the board and then go home to memorise our notes.

The sad part is that we are all judged by our ability to memorise, rather than our understanding of the content or ability to analyse the information. What is more, almost all of the assignments we completed were the works of a quick Google search and the intricate process of copying and pasting.

This bleak reality of our education system does not contribute to the character, cognitive faculties nor ethics of its recipients. We are never challenged to think critically and independently, and thus become victims of our own schooling.

I recall the early days of my university experience, where within the first three weeks I had to submit a 900 word essay that looked at the problems of trying to define religion in a world where religion means different things to different people. This automatically posed a challenge to me; the essay had to be rigorously argued, properly cited and well researched. I had never had to do any of the aforementioned during my education in Oman. Furthermore, in retrospect, 900 words seemed like I was being

asked to climb the Mount Everest on one leg. I had never written more than 500 words in high school.

In western universities, if one makes a particular point in an essay, it must be referenced by some sort of academic source

— such as books, journal articles and the like. Thus, for even the high achieving Thanawiyya student, this becomes uncharted territory. I had to enrol in the university workshops on how to reference properly in particular formats if I wanted to pass the work assigned to me. Copying and pasting off of Google would have been detected by university software and I would have most likely been expelled from the university on grounds of plagiarism. This is how seriously universities expect originality and quality research in essays and assignments. I had never once undertaken any academic work prior to commencing my degree, and thus one can imagine the difficulty I would have faced. Further to this, the tasks for the essays always demanded that the student "critically discuss" or analyse a particular topic.

Memorisation in high school does nothing to help students think, analyse and produce the required standard of work in these assignments. One would imagine that independent thinking and in-depth analysis would be one of the main tenants of high school education, sadly this is nowhere near

the case in Oman. Thus, the problems associated with the encouragement of memorization in Thanawiyya become apparent and affect many Omani who undertake their undergraduate education abroad.

As I completed my foundation year, the essays got longer and the demands placed on the student became heavier. Writing two to three thousand word essays became the norm and made me ever more stressed as I was not sure I could meet the requirements — this despite my love of reading and writing.

For those entering into technical specialisations such as engineering and physics, Thanawiyya would have been just fine. However, for those undertaking research-based degrees such as humanities,

social sciences or any of the arts, Thanawiyya did not contribute much to preparing the student for undergraduate life. The ministries of Education and Higher Education must work together in order to prepare future university students for the standards set by foreign education institutions. Whether in Arabic or English, students must become accustomed to research and producing academic material as part of the Thanawiyya curriculum.

According to UN data (see, I had to research), over 39 per cent of Oman's population are under the age of 25; this means that there will be a large influx of fresh graduates of the current school system pursuing further education or directly entering the workforce.

If we are to have a dynamic and able youth, who can step up to the plate and become effective future leaders of this country, they need to be given the opportunity to think critically and analyse effectively from a young age. The future of Oman depends upon this. One can only hope that the appropriate authorities take the necessary steps to ensure a higher quality of learning that does not rely upon Google searches, copy-pasting and memorisation to excel.

twitter@AhmedHanthi

The bleak reality of our education system does not contribute to the character. We are never challenged to think critically and independently, and thus become victims of our own schooling.