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**Exploring Libyan EFL University Instructors' Integration of Critical
Thinking in ELT**

**A Thesis Submitted in Partial Fulfilment of the Requirements for the Degree of
Master of Arts in Applied Linguistics**

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Abstract

The study aimed at exploring Libyan EFL university instructors' integration of critical thinking in ELT and identifying the challenges they encounter in this process. To accomplish the objectives and fulfil the purpose of the study, a mixed-methods approach was used. For collecting the data required, a close-ended questionnaire was distributed to 55 EFL university instructors and 60 EFL undergraduate students and semi-structure interviews were conducted with 6 English instructors. A thematic analysis method was utilized for analysing the qualitative data of the interviews and SPSS was used for analysing the quantitative data of the questionnaire. The findings revealed that most of the participants integrate critical thinking in their teaching through their methods of instruction, learning materials and assessment strategies. Moreover, the research findings highlighted a number of significant barriers that hinder the instructors' successful integration of critical thinking. These barriers include classroom size, lack of qualified instructors and instructor training courses, lack of facilities, inappropriate materials, testing policy, curriculum deadline achievement and lack of students' knowledge or background about critical thinking. Furthermore, students' views confirmed that the instructors were integrating critical thinking in their teaching. In the light of these findings, some recommendations are offered for promoting integration of critical thinking in ELT in Libyan universities.

Declaration

I hereby declare that I am the sole author of this thesis entitled:

Exploring Libyan EFL university Instructors' integration of Critical Thinking in ELT and that no part has been plagiarized. I also declare that all materials the submitted in this work which are not my own work have been identified with proper citation and referencing and that no material is included which has been submitted for any other qualification of other subjects or courses.

Signature

A handwritten signature in blue ink that reads "Basma". The signature is written in a cursive style with a horizontal line above the name and a flourish at the end.

Date

24/11/2020

Dedication

This thesis is dedicated to my parents, husband, and to my daughter for their support and endless encouragement throughout my study journey.

Acknowledgements

I am grateful to many people who have advised, supported and encouraged me throughout my MA journey. I am grateful to all those who contributed to my success in one way or another.

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Acronyms and Abbreviations

EFL	English as a Foreign Language
CT	Critical Thinking
ELT	English Language Teaching
MOE	Ministry of education
PhD	Doctor of Philosophy
MA	Master of Arts
L2	Second Language
ICT	Information and Communications Technology
WTL	Writing to –learn
PBL	Problem based learning
LST	learning style inventory
CE	Concrete Experience
RO	Reflective Observation
AC	Abstract conceptualization
AE	Active Experimentation
NAEP	National Assessment of Educational Progress
SPSS	Statistical Package for Social Sciences
ESL	English as Second Language
FL	Foreign Language
B.C	Before Christ

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The fact that the structure of societies has been changing with the rapid progress of science and technology in the 21st century requires innovations in the education systems of all countries. The change in the world order from industrial age to information age has altered the priorities of certain concepts such as conformity and sameness and replaced them with open-mindedness and flexibility. Traditional skills such as think inside the box and perform as directed have been proved to insufficient to some levels such as university students. Therefore, the need for a higher priority on creative thinking and problem solving has been raised (Bluestein, 2012 cited in Kavanoz & Akbas, 2017:418). In this new renewing era, education is the only valid method to promote individuals who know how to access, process and reproduce information, make effective decisions, solve problems and be responsible for their learning and thinking critically (Alkın-Şahin et al., 2015). These new thoughts necessitate making critical thinking an essential aim of education and not viewing it as a pedagogical shift in academic discourse. In this respect, Connor-Greene and Greene (2002:324) confirmed that “critical thinking is not an academic fad, but it is a necessary skill for living in the information age”. For this reason, learning to think rationally and critically is the key to educational restructuring in a number of educational settings worldwide.

Since then, the need for critical thinking in more advanced academic settings such as university level has emerged. The inclusion of critical thinking in higher education is desperately emphasized by many authors (Moore, 2013; Mulnix, 2012). Like any other countries, Libya planned to develop and raise the standard of its education system in all

aspects such as the teaching methods, the learning materials and the assessing strategies. These procedures were implemented to guarantee graduates who are effectively capable to cope with the changing globe. According to Rudd (2007), critical thinking should be appropriately taught and the teaching methods have to be updated. Students therefore, will be able to sharpen their thinking abilities and become independent thinkers, problem solvers and autonomous learners the stage that everybody dreams to embark (Duron et al., 2006). Instructors have to integrate this kind of thinking in their teaching and emphasize the need for developing language materials that offer the opportunity for engaging students in tasks and activities that require deep thinking and reflection (Rudd, 2007). Thus, EFL instructors should consult their teaching approaches and practices in the classroom to ensure they are exercising and cultivating critical thinking with their students regardless of the subjects they are teaching.

1.2 Statement of the Problem

According to the researcher's experience as a teacher assistant at Zawia University, it is believed that Libyan EFL university instructors integrate critical thinking in their approaches and practices in class. Yet, this integration still encounters some obstacles. This has been confirmed through the findings of a study was conducted by Saleh (2019) who involved a sample of Libyan EFL university instructors. This lack of integrating CT by these instructors does not help in developing students' critical think skill which represents one of the main necessities of the 21st century. Thus, this study aimed to investigate the aspects of teaching in which Libyan EFL university instructors integrate CT, the challenges they encounter in this process and identifying the views about this issue.

1.3 Aims of the Study

1. Identifying the aspects of ELT in which the instructors integrate critical thinking.
2. Outlining the challenges of integrating critical thinking in ELT in Libyan universities.
3. Identifying students' views about their instructors' integration of critical thinking.

1.4 Research Questions

The research in hand was designed to answer the following questions:

- In what aspects of teaching do Libyan EFL university instructors integrate critical thinking?
- What are the challenges encountered by these instructors in integrating critical thinking?
- What are students' views about their instructors' integration of critical thinking?

1.5 Significance of the Study

This study provides valuable insights for classroom implications. It may guide instructors to make up well-defined guidelines and a practical syllabus for EFL teaching. Furthermore, this study offers professors an in-depth understanding of how well instructors are prepared and what professional help they may need in incorporating CT in the Libyan EFL context. Such insights will provide a necessary basis for making further informed decisions about what courses or content should be included in instructor education and development programs; and thus make instructor education more feasible and ultimately more productive. Thus, the study will guide instructors in choosing their approach of instruction, learning material and assessment strategies with good conditions for integrating critical thinking. This in turn will promote EFL learners' critical thinking.

In addition, the results may act as a mirror for other instructors to re-examine their own teaching practices and reflect on their beliefs, which in turn helps in raising their

awareness of the role of CT instruction in EFL teaching. This awareness can further serve as a source of motivation for EFL instructors to search for more alternative ways of incorporating CT in their own classroom practices.

1.6 Scope of the Study

Although critical thinking is a broad topic, this study concentrated on its integration in the teaching of some Libyan EFL instructors from two colleges from Zaiwa university and one college from Sabratha university. The study did not cover all Libyan universities.

1.7 Methodology

The research in hand employed both quantitative and qualitative methods. The triangulation technique adopted helped the researcher to ensure validity and reliability of the research instruments. To collect the data required for this study, a questionnaire and semi-structured interviews were utilized. The research sample included 55 Libyan EFL university instructors working in different colleges across the country (Zawia, Abu-Issa, Surman, Sabratha). Moreover, 60 students of different groups of fourth year were also involved in this study to diagnose their feedback about their instructors' integration of critical thinking in their teaching. Interview was conducted with 6 instructors. The data were analysed quantitatively and qualitatively.

1.8 Structure of the Thesis

The study consists of six chapters. They are organized as follows:

- Chapter one includes the background of the study, statement of the problem, aims, research questions and the significance of the study. It also includes the scope of the study, methodology and the organization of the study.

- Chapter two is devoted to the literature review which introduces definitions of critical thinking, critical thinking in higher education and in language education. It also contains critical thinking in the EFL context, promoting CT in the EFL classroom, strategies of teaching critical thinking, assessments of critical thinking and challenges of integrating CT.
- Chapter three presents the research methods. It is divided into two parts: the theoretical part and the practical part. The first part includes the quantitative and qualitative methods in addition to the validity and the reliability of the research instruments followed by ethical considerations. The second part contains the research design, sampling, data collection instruments and also presents the pilot study and data collection instruments
- Chapter four displays the results of the quantitative and qualitative data and the steps of data analysis.
- Chapter five provides the discussion and interpretations of the research findings.
- Finally, Chapter six consists of the conclusion, implications, limitations, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews literature on critical thinking (CT) and critical thinking in language education. Although critical thinking embodies every level of education, this review concentrates on higher education focusing on integration of critical thinking in English language teaching (ELT). It also reviews critical thinking in the EFL context and teaching strategies that promote critical thinking in the EFL classroom. In addition, it discusses methods of assessment of critical thinking. Furthermore, it investigates the challenges that might face the integration of critical thinking in ELT.

2.1 Definition of Critical Thinking

Critical thinking is considered as one of the compulsory skills that need improvement in the 21st century (Trilling & Fadel, 2009:7). It is also considered as a skill that can be enhanced in a person's life (Ornstein & Hunkins, 2004:119-20). According to Edwards and Briers (2000), thinking skills are divided into two levels: lower-order thinking (level of remembering and processing information) and higher-order thinking (level of creating and evaluating information). In contrast, Paul and Elder (2008) found three levels of thinking, which include the previous two and also highest-order thinking. Highest-order thinking comprises critical thinking, which is more likely to be the main interest in today's education. The concept of critical thinking was originally developed as a western concept but it is now considered as an essential skill of 21st century education worldwide (Gbènakpon, 2017 ; Rear, 2017).

A wide range of definitions in literature provides variety of views on critical thinking. Most of the definitions of critical thinking commonly refer to the exercise of cognitive skills (Seker & Kumer, 2008). For example, researchers such as Harizaj and Hajrulla (2017) describe critical thinking as a meta-cognitive process through linking it with human cognitive activities. Metacognition is “the monitoring and control of thought” (Martinez, 2006: 696). Cottrell (2005) agreed that critical thinking as a cognitive activity, focusing on argumentation, which requires the use of the mind. Facione (2000) characterized critical thinking as a self-adjusting process involving the use of cognitive skills to make judgments and to improve the quality of judgments. This process of the use of the mind often relates to reasoning, making judgments and reflection (Sternbery et al., 2007). Essentially, critical thinking is an umbrella term for a number of cognitive abilities (Shaaban, 2014). Bloom’s (1956:96) Taxonomy is composed of six different levels of cognitive skills in education. The six levels are classified hierarchically from the simplest action to the high-order thinking actions. These levels are knowledge, comprehension, application, analysis, synthesis and evaluation.

Other cognitive activities such as interpretation, inference, explanation and self-regulation emphasized by Báez (2004:49) are also considered as fundamental principles of critical thinking. However, none of these cognitive activities can be properly performed by those whose critical thinking abilities are limited or not sufficiently developed. This explains the necessity of integrating critical thinking into education, in general, and as an “integral part of English language pedagogy” in particular (Khatib et al., 2012:33). Nieto and Saiz (2008) agreed that critical thinking is a prominent topic at every level in education. Due to an increased demand of critical thinking expectations, scholars and educators attempt to introduce critical thinking in teaching and educational systems to help students to become better critical thinkers (Duron et al., 2006). Students should be actively

involved in the learning activity. This helps students to be able to apply their knowledge not only to solve learning and social problems but also to analyse and organize information that help them to make decisions. Moreover, through applying critical thinking in learning and social practice, students can become more open-minded and creative in finding out the best method of learning and solving problems (Tiwari et al., 2006). This process needs regular practice and teachers should take charge to assist students to be more critical in achieving a level of high-order thinking (Van-Gelder, 2005). This emphasized that teacher behaviours are regarded as the most important variables influencing the development of CT among students (Innabi, 2003). It is difficult to cultivate critical-minded individuals and achieve the transformation projected within the learning programs unless instructor behaviours support critical thinking in classroom environment.

2.2 Critical Thinking in Higher Education

Critical thinking is claimed to be the most recommended skill set in higher education because it gives additional value to students' learning outcomes (Ennis, 2008). Today universities are concerned to "define the enhancement of critical thinking as a primary reason for higher education" (Halpern,1999:70). Correspondingly, universities are doing their best to enrich the quality of learning processes to drive students to be active and empowered citizens (Wal & Jickling, 2002). At universities, lecture is one of the prominent methods usually used to convey information. In contrast, many students prefer to be challenged by active methods that encourage them to be critical in what they learn (Levine & Cureton, 1998). Students are more interested to have educative experiences that give more focus on what they can do and contribute in the real world (Wurdinger &

Rudolph, 2009). These experiences includes sharing ideas, exploring real life situations and solving problems on real issues.

Changing from teacher-centred to student-centred approaches enables higher education students to increase their intellectual abilities such as critical thinking and self-regulated learning through “problem orientation, experiential learning, and lifelong learning” (Wal & Jickling, 2002: 229). Those educational directions can be applied as “a range of complex interactions between student, teacher, setting and learning activities” (Maher, 2004:51). In student-centred classrooms, students can be guided in their learning to achieve the expected learning outcomes of the course (Wright, 2011).

The development of critical thinking is not a short-term process. The initial stage of critical thinking should be introduced and fostered at elementary levels (Ricca et al., 2006), followed by retaining and further developing the critical thinking concepts at the lower secondary and upper secondary level (Snyder & Snyder, 2008), and consistently practiced at university levels. A study conducted by Onwuegbuzie (2004) indicated that levels of education influenced how people think critically and the study showed doctoral students have greater critical thinking skills compared to masters’ students. Thinking may become critical and coherent as education is increased.

Thus, for learning to occur, students should learn critically at every educational level (Paul & Elder, 2010). In essence, critical thinking can be fostered at any educational level and appropriate approaches are recommended. In their argument, Siller (2008) confirmed that training and encouragement are important to develop students’ critical thinking. For this purpose, students in higher education should be explicitly taught to think critically, which leads to problem solving and creativity and at the same time enables them to articulate their knowledge, reasoning, and problem solving in the world of work.

Teachers and students should both learn and practice how to think critically (Khojasteh & Smith, 2010; Sodoma & Else, 2009). More to the point, students feel free to express their opinions and thoughts when the “classroom climate is open, stimulating, and supportive” otherwise, students may not take the risk to engage with critical thinking processes (Black, 2005:4). This means that, teachers must be confident in their own ability to incorporate critical thinking skills in classroom settings and assigned work. Instructors can design and develop new interventions to generate multiple perspectives for learning knowledge and skills (Willingham, 2008; Bryson et al., 2007). Thus, instructors ought to consider factors that may influence their performance in fostering effective critical thinking among their students.

2.3 Critical Thinking in Language Education

The significance of critical thinking skills has been recognized in language education in various contexts. The application of critical thinking in language learning started in the United States, but critical thinking skills are now recognized worldwide (Shen & Yodkhumlue, 2013). For the last few decades, researchers and practitioners have paid more attention to the development of learners’ higher-order thinking in language education (ibid). In Japan, the Ministry of Education, Culture, Sports, Science and Technology (MEXT) recognizes the importance of critical thinking skills and incorporating the teaching of such skills has been promoted in language education. As more emphasis is placed on the communicative ability of language learners, teaching linguistic aspects of a language is not the only goal of language education. Language education curriculum targets the actual use of a second language (Natthanan, 2009). In response to such a goal, educating language learners to enhance the ability to analyse, provide reasons, solve problems, and evaluate judgment is now an important issue.

Due to the advance of technology that facilitates the access to information, using such information in a wise manner is an essential task in education (Jacobs & Farrell, 2001). Therefore, thinking skills are affected by the current educational paradigm. In addition, a particular problem can be examined through variety of thinking routes. Moreover, the current paradigm attempts to connect what is learned in school to society. Thus, learning is not just memorizing lower-order facts. Learning at school is for applying such knowledge towards an improved society (ibid). Consequently, what is needed in current education is beyond just acquiring knowledge. Through critical thinking skills, acquiring knowledge, comprehension, insights and skills related to any content are possible. In order to acquire any content, analytical and evaluative thinking is essential (Paul & Elder, 2010). Hence, Critical thinking skills form a crucial part of education.

2.4 Critical Thinking in the EFL Context

The ultimate goal of learning a foreign language is to use it for communication. This is averred by Norrish (1983:7) who stated that: “language isn’t a set of facts to be learned but a medium for expressing thoughts, feelings and communicating with other people”. Because of that, many EFL teachers focus on the content rather than helping learners develop their individual thinking skills. Deploring this attitude, Poudel (2013:1) stated that “teachers teach the content more than the language”. While it is fundamental to set the foundation of a foreign language, it is necessary to expand lessons to encourage higher level thinking (Jensen, 2002).

The majority of EFL lessons in some countries revolve around rules and rote recollection. While this method is necessary for language formation, it can also be stifling if individual expression is not introduced and encouraged (ibid). In real life interactions, meaningful conversations do not follow scripts or dialogues. As a result, EFL

educational system should be improved to become a system that encourages uniqueness of thoughts and analysis, rather than traditional rote learning (Oster, 1989). In this case, university cannot be seen as a place to meet learners educational needs or their desired paths to success. To have a meaningful character, education should aim to enhance learners' critical thinking abilities (Chaffee, 1992; Paul,1995). Critical thinking skills are becoming more and more essential to educational systems and cultures worldwide, and there have been a lots of researches devoted to the development of critical thinking skills in EFL educational programs.

The advocates of such shifts in education have found that critical thinking skills can be taught in EFL context (Báez, 2004). Chamot (1995) has strongly argued that EFL classrooms should be a community of thinkers. To achieve this aim, the role of the EFL instructors should also change; they should work towards improving not only learners' language skills but also have them reflect on their societal issues by training them to become agents of change (Kim et al., 2012; Stefanova et al., 2017). This change will not only develop greater thinkers and contributors to these individual societies, but it can also give the chance to the learners to positively impact the world (ibid). Rezaei et al., (2011:56) pointed out the role of EFL instructors in developing learners' thinking skills. they claimed that "children are not born with the ability to think critically, nor do they upgrade this ability beyond survival-level thinking when there is a lack of implicit and explicit instruction. Critical thinking has to be learnt, so instructors are called upon to enhance learners ability to think critically". By encouraging students to not only give and defend their reasoning for correct responses, but for incorrect ones too, teachers encourage them to use logic and evidence when making decision (shaila & Trudell, 2010). By so doing, EFL instructor is fulfilling part of his/her tasks, which is to prepare learners for the world outside the classroom (Davidson, 1998).

2.5 Promoting Critical Thinking in the EFL Classroom

English as a Foreign Language (EFL) classroom has been thought to be a great scenario to develop 21st Century skills such as, critical thinking (CT), creativity, communication, collaboration, ICT literacy, leadership and responsibility, as well as social and cross cultural skills (Zhou et al., 2015). Consequently, EFL directors, scholars and editors are impelling teachers to boost these skills in their lessons, specially, critical thinking. CT is regarded as one of the most essential and crucial factors of success in the 21st century that should be better understood by EFL instructors so that it is oriented towards the achievement of L2 skills while preparing autonomous learners, who are able to evaluate their own learning process critically (Delmastro & Balada, 2012:27). Numrich (2011) asserted that critical thinking is an essential aspect to teaching language because it concentrates on inferring and articulating meaning, rather than just on recalling and reproducing knowledge.

Furthermore, Puchta (2012:6) stressed that thinking skills and foreign/second language are highly benefited from tasks that have a real-world purpose such as problem-solving, decision-making, thinking about the consequences of one's own or other people's actions and so on. This kind of activities enhances communication and pays attention to content and meaning rather than on structure. As a matter of fact, language acquisition appears when language is used for and what it was meant for (Krashen, 1982:7). Moreover, Martinez (2011) claimed that when students are challenged to express their thinking, they make a greater effort to convey their messages including proper vocabulary and syntax according to the kind of thinking they want to transmit, which eventually turns out to influence on their motivation positively due to the acknowledgement of their personal voice in class. Baez (2004) applied didactic units that involve critical thinking

skills in a qualitative case study. She discovered that students made associations and interpretations using their prior knowledge from their fields of study, personal beliefs, values and experiences as a base for the new construction of meanings.

Besides, instructors play an important role in the meta-cognitive processes that the students have for their learning by encouraging them to go beyond superficial messages, and to comment on what they understand, which are essential to monitor and control someone's thinking (Fredricks et al., 2004). This means that, when instructors provide thought-provoking feedback in their lessons, students tended to give more ideas. Baez (2004) concluded that the implementations of those tasks had an impact on students' development of language competence in terms of lexical and discursive competence. However, "the learning of a language, as well as the advance of critical thinking, is a long-term task that entails on-going practice and reflection from both teachers and learners" (Fredricks et al., 2004:74).

Mok (2010) agreed with Baez (2004) that the role English language instructors play in the development of students' critical thinking. In spite of being aware of the importance of teaching critical thinking, teachers in Baez's study stated that they needed support and a specific professional training program related to the application of critical thinking in EFL, which also addressed Baez's (2004) call for educators to examine their own context and generate their learning outcomes in order to enhance the development of a communicative competence in English as a foreign language along with the promotion of critical thinking in general. Critical thinking is an on-going enterprise that is strengthened by reading, questioning, and analysis of contemporary topics. Strategies to foster critical thinking in EFL classroom can be conducted at any stage of language learning, from beginner to advanced levels, but the level of complexity of the tasks will be different depending on the command of the language (ibid).

In the arena of classroom strategies that foster critical thinking in EFL, Delmastro and Balada (2012:27) compiled nine strategies that were favourably evaluated by teachers and learners in their study. These strategies are: (a) the big question, which aims to search for data and evidence and then analyse such information; (b) matching exercise, which expresses cause and effect relationships; (c) colour highlighting, which establishes differences between facts and opinions, main ideas and secondary ideas, pros and cons, data and examples; (d) fishbone diagram, which expresses causality; (e) T- chart, which differentiates facts and opinions, establishes comparisons, presents pros and cons arguments; (f) The question formulation technique, which orients the reflection on a given input; (g) Venn Diagram, which establishes similarities and differences, comparison and contrast; (h) concept map, which selects, organizes and represents information; (i) discussion sheet, which organizes and evaluates information.

Similarly, Hughes (2014:8) outlined some interesting activities for promoting critical thinking in the language classroom including: (a) developing a critical mind set; b) opinion and reason generator; (c) critical questioning; (d) recognizing context; e) making connections between topics; (f) evaluating the reliability of sources; (g) stance; (h) identifying main arguments and supporting evidence; (i) fact or opinion; (j) vague or accurate; (k) where is it from?; (l) reading between the lines; (m) false conclusions; n) writing headlines; (o) find the expression; (p) predicting the content of the text; (q) practicing the language for expressing critical thinking; (r) for-and-against essay; (s) preparing a group discussion; (t) assessing presentation (for learning the procedures of these activities (Hughes, 2014:8-26).

Implementing such activities in classrooms requires instructors to model critical thinking, as it provides an effective scaffold that helps students not only understand but also establish a good rapport with their teachers.

Thus, promoting critical thinking in EFL classes has a great significance for many reasons. Firstly, if language learners are responsible for their thinking, they will monitor and evaluate their own ways of learning more successfully. Secondly, critical thinking expands the learning experience of the learners and makes the language more meaningful. Thirdly, critical thinking has a high degree of correlation with the learners' achievements (Rafi, 2004:96). Different studies have stressed the role of critical thinking in developing ESL writing ability; language proficiency (Liaw, 2007); and oral communication ability (Kusaka & Robertson, 2007). The learners may become proficient language users if they are motivated and are taught the ways of displaying critical thinking in foreign language usage, which implies that the learners must have reflection on their production of ideas, and they may critically support those ideas with logical details. Language development and thinking are closely related and the teaching of higher-order thinking skills should be an integral part of an L2 curriculum. Educators have emphasized the importance of developing higher-order thinking skills in foreign language classrooms (Chamot, 1995) and empirical evidence supports the effectiveness of teaching critical thinking skills along with the foreign language (Chapple & Curtis, 2000).

Language learners who have developed critical thinking skills are able of doing activities of which other students may not be able to do. In this regard, Mahyuddin et al., (2004) stated that language learners with critical thinking ability are capable of thinking critically and creatively in order to achieve the goals of the curriculum; making decisions and solving problems; using their thinking skills, understanding language or its contents; and treating thinking skills as lifelong learning.

Finally, promoting critical thinking in EFL context requires instructors to think teaching beyond grammar structures and vocabulary, and focus on fostering thinking, creativity, autonomous learning, decision-making and self-evaluation (Lipman, 2003).

Likewise, educators should provide opportunities for students to be creative and get on a real communicative environment, in which students express their ideas about topics discussed in class (Bransford et al., 2000). Task-based and project-based activities provide learning environments that foster autonomous learning, active participation, decision-making and reflection on one's own learning process and L2 progress (Marin & Pave, 2017).

2.6 Strategies of Teaching Critical Thinking

Teaching critical thinking skills is a major concern of instructors. Yet, teaching and learning critical thinking is not an easy task to achieve in classroom because it involves a deep understanding of a problem's structure and applying knowledge about how to solve it (Khojasteh & Smith, 2011). To enable students to think critically, instructors must be critical thinkers themselves (Kinchelo, 2004). This means that, instructors should be critical thinking agents who guide students to become better critical thinkers through teaching strategies.

Yet, instructors may presume their job is only to provide students with content information without understanding the importance of facilitating experiences for students to develop and improve their thinking (Jensen, 2002). Therefore, preparing positive classroom climates that include inquiry and problem solving processes, may stimulate students to maximize their learning and experience to enhance their critical and reflective abilities (Witherspoon et al., 2016).

Consequently, critical thinking is a mode of thinking that allows people to analyse and examine ideas of a topic, and then synthesize this into a process of decision-making (Timpson & Burgoyne, 2002). Although critical thinking is a natural thinking process, it cannot be improved without practice (Moore & Parker, 1995). In other words, critical

thinking should be daily practiced, for instance, in reading and writing. A lot of questions are required to explore the meaning and value of learning that is suitable to an individual's culture, values, and beliefs. Perhaps, if one wants to integrate new information with existing knowledge, one might ignore, consider, question, criticize, defend, challenge, or use humour to better understand the issue. Thus, the process of analysing, truth seeking and the traits of self-confidence, inquisitiveness, and open-mindedness commonly emerge when nurturing critical thinking (Facione et al., 1995).

Explicit teaching, or the lecture method, is a common practice in EFL classes. Direct teaching provides an abundance of knowledge, which can be delivered within a course schedule. Students listen, take notes, and concentrate on the content. Students claim to like this method because it is an “explicit, direct, and highly scaffold manner” of learning, which make them successful learners (Kuhn, 2007:109). According to Rittle-Johnson (2006), direct teaching can improve students' behaviour in the classroom. However, do students learn effectively? Can teachers identify students' achievement if they do not pose questions to their students? With the lecture method, students may be distracted while being given large amounts of information (Wurdinger & Rudolph, 2009). Direct teaching also may not be the best fit for all students (Warner & Myers, 2011). Meanwhile, a variety of teaching strategies that involve students' reflections and applications can contribute to work force performance (Mohr, 2007).

Instructors can design and develop new teaching strategies and lessons that encourage multiple perspectives and deeper understanding of the content being taught. In their argument, Seaman and Fellenz (1989:119) stated that there are four basic factors that influence teachers' selection of teaching strategies: (a) learners; (b) teachers; (c) organizations; (d) content. Student learning is impacted by a teacher's decision-making in planning for the creation of successful instruction. With proper and good planning,

instructors can provide excellent instruction and can manage teaching effectively (Timpson & Burgoyne, 2002). Moreover, student learning is influenced by the teacher's abilities to deliver course incorporate in teaching (Tyler, 2010). Teachers can use the Learning Style Inventory (LSI) as a tool to better understand individual learning styles (Henson, 2006). The learning modes used in the LSI are Concrete Experience (CE), Reflective Observation (RO), Abstract Conceptualization(AC) and Active Experimentation (AE). According to Kolb (1981), these modes identify people's choices in learning style.

Although instructors might believe that their sole role is to convey information to their students, they should continue to learn and grow as professionals to incorporate and update content and teaching strategies (Kugel, 1993). More importantly, instructors are also learners, and every instructor has his/her learning style. Instructors need to understand their own learning styles and their students' learning styles to better deliver content and to deepen understanding. However, Henson (2006:345) argued that "not everyone believes in the powers of matching teaching styles with learning style". There is continuing research in the association of teaching and learning styles, for example a study conducted by Charkins et al., (1985) showed a link between teaching and learning styles among teachers and students in Economics at Purdue University. Teaching strategies do allow instructors to facilitate students' learning effectively (Franzoni & Assar, 2009).

Nevertheless, it is not easy to select the most effective teaching strategy that improves students' learning and trains students to become critical thinkers because teaching itself is a complicated task to perform (Taba, 1966). An understanding of Bloom's (1956) taxonomy is a good place to start. The cognitive domain of Bloom's taxonomy could be used to aid instructors to individualize instruction more effectively (Orlich et al., 1985). Bloom (1984) emphasized that the taxonomy is an essential tool to determine types of

instruction appropriate to the students' learning process. Instructors can make use of Bloom's taxonomy in their teaching as a reference for writing learning objectives, developing lesson plans, asking questions of students, organizing class activities, and preparing tests and examinations to assess students' critical thinking (Anderson, 1994). Furthermore, Bloom's taxonomy is a "convenient, quick, efficient, testable, measurable and accountable" multi-tiered model of knowledge production and thinking (Berry, 2004:464). Thus, by using Bloom's taxonomy, instructors can incorporate appropriate strategies to develop student thinking and help "master different types or levels of objectives" in their learning (Anderson, 1994:134). This means that, instructors are responsible to integrate strategies that encourage students to optimize their learning more effectively.

Anderson (1994) went further saying that other options should be taken into consideration when making decisions about teaching strategies. These options include the learning process, learners, variations in students' capacities and readiness, the institutional setting and its requirements, objectives and the structure of the processes involved, content and its structure, and personal teaching style. With proper planning and management, it is possible for instructors to use a variety of methods. Students may learn best when an instructor delivers the curriculum with appropriate teaching strategies. Franzoni and Assar (2009:19) pointed out that "teaching strategies must be designed in a way that students are encouraged to observe, analyse, express opinion, create a hypothesis, look for a solution, and discover knowledge by themselves". As a result, students do more exploration in the learning process to enhance their thinking skills (Kolb, 2005). Instructors should discipline their minds to continually reflect on their own teaching and to routinely consider other perspectives exploring teaching strategies and methods that could improve students' ability to think critically (Sodoma & Else, 2009).

2.7 Enhancing Critical Thinking Strategies

Much research work indicated various teaching strategies that might help in promoting critical thinking. These strategies can be utilized to relate college subjects and topics to practical situations the students deal with on a daily basis, so that they can associate what they learn with what they experience (Ten Dam & Volman, 2004). Furthermore, through teaching strategies, students could be encouraged to understand, discover, analyse, and synthesize issues or challenges (Krathwohl, 2002). Teachers need to master the subject matter as well as organize and construct their instructional practice (Grant,1988). Alternative teaching strategies such as active learning and cooperative teaching (Cooper, 1995), debate and role-play (Gratton, 2010), problem-based learning (Mimbs,2005), questioning (Christenbury & Kelly, 1983), and writing (Gunnick & Bernhardt, 2002) improve students' critical thinking processes. All of these strategies explored and reviewed below:

2.7.1 Active Learning

Active learning involves students in doing activities and in reflective thinking about those activities. In the past decade, a major shift has taken a place in education; that shift is toward active learning. Instructors have used this approach generally found that the students learn more, and the courses are more enjoyable (Limbach & Waugh, 2010). As Bonwell and Eison (2000:36) pointed out that “active learning can be defined as anything that involves students in doing things and thinking about what they are doing”. Consequently, active learning can improve productivity and ensure that students are able to understand the content. The students in an active-learning classroom are able to be creative and make meaning of the class work. “In contrast to teacher-centred approaches, active learning approaches encourage students to become active, motivated, and independent learners through open communication and collaboration” (Milner, 2010:201).

Therefore, instructors should embrace facilitation skills and make use of different active learning techniques so that students can apply their learning. Fata-Hartley (2011:36) concluded that “many college science educators have moved away from the traditional lecture format and toward learner-centred classroom environments ... rote memorization simply does not work and that students must be actively engaged to learn”. Every student learns differently, and an active learning model will improve understanding. In a study on memory and active learning, Cherney (2008:154-55) stated that “it is important to consider presenting information in multiple modalities to accommodate different learning styles. Students are individuals and each learns in a unique way. It is important for facilitators to find the key learning styles and then employ them in the classroom”. By the same token, Cavanaugh (2011:24) said, “the benefits of active learning in lectures are maximized when tasks are authentic and reflect how knowledge is used in real life”. Active learning projects such as debate, problem based learning (PBL) and group exercises are all examples of how instructors can enhance learning in classroom. The term active learning covers a wide variety of learning strategies aimed at encouraging active student participation in “learning-by-doing” (Scheyvens et al., 2008:51). In a study on student learning, Tyler (2010:358) stated that “learning take place through the active behaviour of the student. It is what he (sic)does that he learns, not what the teacher does”.

A study with positive results for active learning in classroom conducted by Grimley and Lail (2011) revealed how students feel more involved in their learning, and they appreciate the opportunity to learn under circumstances other than lecture.

2.7.2 Debates

Experts and scholars have realized various techniques and methods that might promote and improve critical thinking and oral communication skills in the classroom context (Halpern, 2003). Browne and Freeman (2000) believed that a lot of evaluative

learning activities need to be integrated in subjects which aim to practice critical thinking skills. It is suggested that raising controversial issues into the classroom creates an environment of developmental tension that maintains reflection, rational judgment, and also necessitates considering various viewpoints. Freeley and Steinber (2005) stated that academic debates have been distinguished as one of the most helpful learning approaches and promoting critical thinking for over 2,000 years. As Nisbett (2003:210) pointed out, “Debate is an important educational tool for learning analytic thinking skills and for forcing self-conscious reflection on the validity of one’s ideas.”

Many experts and researchers such as (Moomala et al., 2013; Doody & Condon, 2012; Tumposky, 2004) agreed that classroom debate is an approach which makes learners get involved in the learning process. It also gives the learners opportunities to express themselves, develop their higher-order thinking, prevent rote memorization and misunderstanding, motivate the learners, and assist them to stay away. Additionally, getting ready to take part in debate also improve superior mastery of the material in promoting active learning. Debate preparation upgrades the talent of activating an argument in its important terms, acquire and utilize data and evidence to sustain a principle, categorize and communicate information in a comprehensible approach, and think about, assess and rebut contrasting arguments; these skills are in line with critical thinking skills (Rudd, 2007).

In literature, it is agreed that debate is a helpful approach for developing and sustaining critical thinking skills as well as oral communication ability (Camp & Schnader, 2010; Paul & Elder, 2008; Ryan & College, 2006). In her study, Omelicheva (2007) found that classroom debate led the learners to be involved in the intellectual practices which exemplify critical thinking skills. Moreover, the findings of the study revealed that classroom debate provide a chance for learners to practice and promote their presentation

and group work skills. Kennedy (2007) argues that classroom debate can get the students actively involved in the process of learning and also put more responsibility of comprehension on them.

To sum up, a wide consensus among researchers that classroom debate helps students develop critical thinking and oral communication skills among many other skills. Students are taught how to synthesize, analyse, and evaluate statements and arguments. Thus, debate boosts active learning which allows students to take part in the learning process actively.

2.7.3 Cooperative Learning

Cooperative learning is not a new strategy; it has existed for many years, and there is a huge body of research to support cooperative learning in the classroom. According to Richards and Rodgers (2001:192), cooperative learning is “a group learning activity organized so that learning is dependent on the socially structured exchange of information between learners in a group and in which each learner is held accountable for his or her own learning and is motivated to increase the learning of others”. Thus, Cooperative learning is a strategy that allows a small group of students to share thoughts, ideas, skills, and experiences to improve their learning process. It encourages students to be active participants in exploring what they are learning by asking questions and giving opinions, rather than taking notes and memorizing theories and facts (Hyslop- Margison et al., 2004; Applebee et al., 2003). Jaques (2000:4) suggested that "learning in groups, rather than in formal lectures or training sessions, allows students to have greater scope to negotiate meaning and express themselves within the language of the subject. It can also play a central part in developing key critical-thinking skills, communication, and decision-making skills." This goes in line with Ryan (2003) who states that the development of students' critical thinking can be promoted by leading the students to engage actively and

involve in classroom activities. Jacobs and Hall (2002) indicate that using cooperative learning improves cognitive processes in students because they elaborate and organize information in their minds as they work together to comprehend a passage. Cooperative group members can use their own as well as their teammates' background experience.

Cooperative learning operates with three principles: group goal, individual accountability, and equal opportunity for success. The teacher's role in implementing cooperative learning includes instruction and monitoring students, and active involvement in helping students to get the advantages of collaborative learning (Paulston, 1975). Many studies shed some light on using cooperative learning in EFL classrooms. Johnson and Johnson (1989:4) believed that students will not work mutually without a common goal. They went on saying "in cooperative learning situations there is a positive interdependence among students' goal attainment. Students perceive that they can reach their learning if and only if other students in the learning group also reach their goal". Similarly, Slavin (1995:5) confirmed that cooperative learning will not be approached with just telling "students to work together; they must have a reason to take one another's achievement seriously". Therefore, it can be concluded that success can be achieved only by the participation of all the group members. Positive interdependence can also be produced. Thus, group members are motivated to teach each other, to engage in behaviours that increase achievement and to avoid behaviours that decrease an achievement, such as giving or receiving answers without explanations. Liang (1995) conducted a study in his classroom at a university in Taiwan for one school year. He concluded that the students in his class showed more willingness and less anxiety about using English in individual groups rather than in class as a whole. Generally, the students were favourably disposed toward group work. Students seldom volunteered to answer the teacher's general questions

or initiated talk in whole-class settings. Thus group work appeared to be an appropriate instructional strategy to promote practice in English (Liang, 1995).

2.7.4 Role-play

According to Ertmer, et al., (2010:73) role-play develops critical thinking because “students work together to resolve a potentially real situation”. Through role-play activities, students tend to accept other’s views (Kienzler & Smith, 2003). Hence, students need to be motivated to communicate ideas and feelings using any target language (Wafaa, 2014) but also practice their “quality of thought, argumentation, analysis, synthesis, explanation, evaluation on the usage of the foreign language” (Marin & Pava, 2017:86). It is assumed that role-play can develop critical thinking by engaging students in different case scenarios to demonstrate the real life situations and can be productive teaching approach to foster critical thinking among students in classroom (Gibbons, et al., 2002). More to the point, Possin (2008) stated that role playing can enable students to apply their knowledge in real life context. Thus, role play is considered a viable activity that engages students cognitively and affectively to work together to resolve issues (Jones, 2007; Mooradian, 2008). Additionally, Hassan (2007) argued that students playing a role and interact with different people, can share information collaboratively that remove their ambiguities and inaccuracy of concepts. Undoubtedly, this strategy improves students’ communication skills through exchanging dialogues with each other (Jeffries, 2007; Mooradian, 2008). It also plays a significant role in modifying the behaviour of students. Students will recognize their learning potentials when verbalizing their insights using role-play. This simulation-based scenario activity can increase group participation and acceptance of others’ ideas and opinions to solve problems (Jeffries, 2007).

Accordingly, the structure of the role-play will allow the learners to engage themselves and use their own personalities and experience. For that reason, Siddiqui

(2008:63) stated that “in role play students learn through active involvement and therefore personal experience. They also have the opportunity to reflect on this experience”. Role-play fosters students to actively participate with questioning and debriefing sessions (Devet, 2000). In order to instil critical thinking skills among students, instructors should provide an educative environment where students can cultivate their critical thinking skills and critical thinking attitude (Garrison et al., 2000). Consequently, role-play can broaden students’ knowledge and improve their attitudes and skills.

Songco (2002:230) and Siddiqui (2008:80) affirmed that there are five steps for instructors to follow in order to organize and implement role play in oral classroom so as to enhance students’ oral communication production. The stages are presented as following: the first stage is the briefing stage which deals with the selection of the situation. The participants should clearly understand their roles and what the situation is about. The second stage is the use of a checklist, it is useful to ensure students understand how the role play will work, especially how they will interact with other players within the group. The third stage is the interaction stage, which is an opportunity for the students to assume and perform their parts. It should reflect the development of the real life situation. The fourth stage is the forum stage which engages the participants in direct interaction involving all stakeholders. It is for negotiation to take place with the purpose of reaching a solution. The final stage is the debriefing stage which may be referred to as evaluation. It is considered as the most important element of the role play. Throughout this stage, the students are given the opportunity to discuss what has taken place in the presentation in order to give remarks, reactions and comments.

2.7.5 Problem-based Learning (PBL)

Problem-based learning is a learning technique that is well situated to help students become active learners because it puts learning in real world problems and makes students

responsible for their learning (Hmelo-Silver, 2004). PBL pedagogy promotes learning through the concept of 'learning by doing', which creates an opportunity for students to learn by experiencing the process of problem solving (Woods, 2000). In PBL, the instructor works as a facilitator and is responsible for monitoring students' progress and stimulating their meta-cognition (Wee, 2004). The instructor encourages students to think creatively and critically in looking for a best solution to a complex and ill-structured problem (Hmelo-Silver, 2004). Barrows (1996) professed that PBL can improve students' critical thinking and problem solving skills by creating a problem for students to explore solutions in small groups using instructor-facilitated learning. Furthermore, Hung (2009) stated that PBL is initiated when a problem is identified and students learn to be good investigators because PBL provides essential steps to solving problems.

Hence, students construct higher order thinking skills, especially critical thinking ability, through PBL activities (Savery & Duffy, 2001). The authentic and ill-structured problem that is posted creates a cognitive conflict, which promotes students' thinking ability (Wee, 2004 & Semerci, 2006). This typically occurs during a group brainstorming session, as solving a problem requires students to critically consider one possible best solution for the problem (O'Grady & Alwis, 2002). Consequently, PBL involves students in the learning community, through cooperative learning with group members, as well as promoting collaborative learning with other experts (Brodie & Borch, 2004).

Recent research has highlighted PBL effectiveness on targeted learning domains, such as knowledge acquisition (Bilgin et al., 2009), critical thinking ability (Sendag & Odabas, 2009), and motivation (Martin et al., 2008). In their study, Gurses et al., (2007) suggested that problem-based learning activities promoted critical thinking and problem-solving skills; active participation in the learning process including self-direction, identification of own learning needs, teamwork, creative discussion, and learning from peers; and the

integration and synthesis of a variety of knowledge. Other research findings illustrated that students with better knowledge acquisition had a great ability in thinking critically (Tiwari et al., 2006; Deal & Pittman, 2009). When compared to Bloom's taxonomy of the cognitive domain, problem-based learning seems to be very effective in promoting students' learning at a higher cognitive level of application and evaluation, but not at understanding level (Alcazar & Fitzgerald, 2005; Dehkordi & Heydarnejad, 2008). In addition, hands-on learning activities are an important component in PBL (Beacham & Shambaugh, 2007). Conversely, PBL can be successful only if appropriate meta-cognitive and reasoning strategies are successfully applied by students in their learning (Hmelo-Silver, 2004: 240)

2.7.6 Questioning

The development of critical thinking skills and the types of questions asked by instructors are closely related. Critical thinking involves inquiry processes and questioning characterizes critical thinking teaching strategies (Christenbury & Kelly, 1983). Most studies on classroom questioning have begun by invoking the Socratic technique of using questions and answers. Socrates' model of questioning is an incontestably powerful teaching approach to challenge learners' assumption; to expose them to contradictions which finally lead to a new knowledge and wisdom. It is an effective way to explore ideas in depth. More importantly, Socratic questioning can be used at all levels and is a helpful tool for all instructors. It can also be used at different points within a unit or project. By applying Socratic questioning, teachers promote independent thinking in their students and give them ownership of what they are learning (Etemadzadeh et al., 2012). Higher-level thinking skills are present while students think, discuss, debate, evaluate, and analyse content through their own thinking and the thinking of those around them. Hence, instructors' questioning is one of the most influential on learners' thinking (Seker &

Komur, 2008). Questioning has a significant part in developing critical thinking skills (Cotton, 2001). Including Bloom (1956) researchers agreed that critical thinking skills can be taught through questioning (King, 1995; Savage, 1998). The levels of learners' thinking are equal to the levels of questions asked by the instructor (Savage, 1998). Asking higher-order questions is an effective tool of improving learners' critical thinking skills because in the process of answering such cognitively demanding questions, learners are encouraged to think at a cognitively higher level (McNeil, 2010).

Although there are a variety of questions that instructors could ask, learners are more likely to develop their critical thinking skills when instructors ask questions that are cognitively more demanding. Asking learners more cognitively challenging questions can enhance the learners thinking skills, specifically critical thinking skills. For example, Cole and Williams (1973) investigated whether there is any link between the cognitive levels of questions instructors ask and those of learner answers in English classrooms. This study revealed that the more cognitive demanding questions instructors asked, the higher the cognitive levels of responses learners provided. When questions are skilfully asked, such questioning can enable learners to engage in the classroom and encourage and challenge learners to think (Clark & Kellough, 2005). A recent study conducted by McCollister and Sayler (2010) suggested that instructors use questioning techniques that allow students to engage in metacognition and develop activities that require students to evaluate information through collecting and analysing data rather than memorizing and recalling facts.

Thus, instructors' questions can be classified into display or close questions and referential or open questions (Kao et al., 2011). Display questions are questions that ask learners for information that is already known to teachers. For example, instructors may ask questions about factual information that was already taken in previous lessons (Farooq,

2007; McNeil, 2010). While, referential or open questions are questions that are asked in order to elicit information that is not known to the questioner in advance. Instructors may ask learners for their ideas and opinions as well. Moreover, questions can be categorized according to their cognitive levels.

A famous and frequently used categorization of questions is a taxonomy proposed by Bloom (1956: 229) in which he stated that “questions can be lower-level and higher-level questions”. Questions at the knowledge, comprehension, and simple application stages of the taxonomy are lower level questions that are cognitively less demanding, while questions that require analysis, synthesis and evaluation skills are higher-level questions that are cognitively more challenging (Bloom, 1956). These higher-order questions are often referential and open questions (Wright, 2005). Lower-level and higher-level questions are used for various purposes. Lower-level questions are usually useful for the assessment of students’ comprehension and preparation and the review of content whereas, higher-level questions are usually appropriate to encourage learners to think critically and deeply to encourage discussions and promote learners to seek information independently (Goodwin et al., 1983).

A number of studies have studied the impact of the cognitive levels of instructor questions in language classrooms. In general, higher-order questions have been viewed as powerful tool in language learning situations that contributing to various aspects of language learning (Wilén, 2010). For example, cognitively challenging questions are more likely to promote longer and more complex answers from students. With regard to this point, studies argued that higher-order questions, in comparison with lower-order questions, are more likely to result in greater amount of learners’ output in classroom interaction (Shomoossi, 2004).

Other researchers such as Farooq (2007) and McNei (2010), commonly found that higher-order questions resulted in longer answers from learners. In addition to the length of learner response, the research findings showed that higher-order questions also contribute to the complexity in syntax and grammar of learner responses. These results of higher-order questions might occur because more cognitively requiring questions from instructors need more thinking and clarification rather than simple presentation of factual knowledge. Asking higher-order questions should be encouraged because such questions can provide more opportunities where learners can produce their target language.

2.7.7 Writing

The connection between writing and critical thinking is intertwined to the degree that it is impossible to separate them. Hence, strong critical thinking and writing skills are a useful combination to enhance students' ability to think critically (Green & Klug, 1990). Critical thinking encompasses a broad range of skills as well as sub-skills. White and Wade (1995), operationalizes critical thinking in the context of learning into activities like asking questions, defining a problem, examining evidence, analysing assumptions and biases, avoiding emotional reasoning, avoiding over-simplification, considering other interpretations and tolerating ambiguity. Writing improves thinking because it needs individuals to make their ideas explicit and to evaluate and choose necessary tools for an effective discourse (Quitadamo & Kurtz, 2007). In his research, Gamill (2006:754) claimed that writing allows students to "use a variety of problem solving skills and thought processes, fostering critical thinking skills". He also added that writing can strengthen critical thinking skills. Students who are critically literate and simultaneously able to express their thoughts in writing have the advantage of improving their thinking skills (Hillocks, 2010).

Through writing, critical thinking is expected to evolve empirical arguments and logical reasoning (Quitadama & Kurt, 2007). Furthermore, Nagin (2006:5) argued that writing is crucial for “success in and out of school” and can support learning in all disciplines. Therefore, students need to be moved beyond rote memorization to deeper understanding of content. Troia (2006) agreed and recommended that instructors can address issues that challenge students through teacher-student conferences, instructor-directed mini-lessons, peer tutoring, and by differentiating feedback on individual student’s work. Moreover, instructors should provide proper ground rules and a rubric, specific instructions, questions, and explanations that guide critical thinking in writing. Wells (2006) added that students will increase writing skills when they are participating in the writing process with their teachers. Instructors can use student writing to predict where learners are in their thinking and understanding of topics (Rahim, 2008; Stapleton, 2001). Knipper and Duggan (2006:462) claimed that “mastery of content is demonstrated not only through reading, but also through writing”. Hammann (2005) stated that practicing writing skill improves students’ self-regulation and self-efficacy.

Additionally, using writing to diagnose student learning can allow instructors to plan lessons appropriately, reaching students where they are. Consequently, writing enhances learning by incorporating writing-to-learn (WTL) such as journal entries and reading responses, formal assignments (Gunnink & Bernhardt, 2002), persuasive writing (Hillocks, 2010), essay exams, and reports, (Hammann, 2005). Therefore, instructors must actively update the topics of the writing assignments to correspond with changes in career fields. Ball (2006) believes that students need to be involved in group-work and have the chance to experience and explore each other’s ideas as part of the writing process. Quitadamo and Kurtz (2007) viewed the effects of writing on critical thinking with general education biology students. This study revealed that students who were involved in weekly essays, as

opposed to weekly quizzes, improved their critical thinking skills, specifically analysis and inference, over a nine-week period. The writing in this study was done collaboratively and the act of writing was seen as a social process. Many researchers concluded that writing should be used to learn critical thinking skills at a younger age so that these skills are developed prior to students arriving at institutions of higher education. (Ball, 2006; Indah, 2009, 2010).

2.8 Assessment of Critical Thinking

Most of previous studies on critical thinking focused on large-scale assessment across subject borders as indicated by (Ennis, 1993; Nosich & Paul, 1992). Whereas, modern scholars highlight the importance of student-centred pedagogy, context-bound items and formative assessment such as (Brown, et al., 2014). According to Mazer, et al., (2007:90), encouraging instructors to engage in hands-on activities make learners “ask questions, take risks and learn through process”. Hence, instructors need to be better listeners in order to competently respond to questions and statements from proficient learners. Further, since critical thinking skills are contextual as asserted by (Willingham, 2008 & Bailin, 2002), items need to be designed to “match meaningful instructional contexts” as suggested by (Brown et al., 2014:552). This means that the long-standing assessment strategies proposed by Nosich & Paul (1992) for large-scale national assessment are not effective in developing critical thinking skills for more modern learners.

In Nosich & Paul’s (1992) “Model for National Assessment of Higher Order Thinking”, multiple-choice items, multiple-rating items and essay items are all valid assessment strategies for educators. According to Brown, et al., (2014), the lack of formative assessment prevents students from realizing the high expectations set by the

NAEP (National Assessment of Educational Progress), which entails evaluating multiple streams of information across different subjects. As Facione (1990) claimed “critical thinking assessment should occur frequently, and it should be used diagnostically as well as summative”. Hence, critical thinking assessment methods with formative value are vital to students’ development as critical analytical thinkers. Formative assessment becomes crucial in this task. However, instructors must always be aware of the fact that classrooms comprise of both high and low critical thinkers. It is therefore essential for teachers to use a mixture of instructional approaches that appeal to different cognitive and learning styles (Hunt et al., 2006).

Nevertheless, questions still remain unanswered on how to apply beneficial formative assessment of CT skills. Brown et al., (2014:549) provided a four step assessment cycle. (a) observing: eliciting performances assumed to depend upon the latent variable(s), leading to set of observations; (b) scoring: categorizing different observed performances and assigning them a relative value, or scores; (c) summarizing: combining the values of individual performances to yield measures of each latent variable; (d) interpreting: using measures of latent variables to answer the question and characterize how much of the critical thinking construct a student’s possess. In this case, the latent variable is student’s ability to search, select and critically examine texts (Skolverket, 2011). Techniques for assessing critical thinking skills range from multiple-choice items for large scale national assessment (Facione, 1990; Nosich & Paul, 1992), to written assignments, debates and group projects (Cotter & Tally, 2009). Hence, it is essential for instructors to create assignments in relation to a meaningful context. In the field of critical thinking, many scholars highlight the importance of context-bound items since there are no critical thinking skills that can be learned or implemented regardless of context (Bailin,

2002 & Willingham, 2008). Accordingly, instructors need to design assignments that are context-bound in order to make critical thinking becomes authentic.

In the same vein, a study conducted by Marijic and Romfelt (2016) on Swedish English language instructors revealed that teachers employed more hands-on activities to support students' critical thinking abilities. They also reported using a student-centred approach to support students' critical thinking abilities. One of them described different methods that are linked to student-centred pedagogy, such as group discussions, peer review or using the class as a whole to provide examples for comparison and contrast, while the other used open-questions and peer-review to stimulate students' critical thinking. These hands-on learning activities allow students to become active in their own education and consequently help them facilitate a critical mind-set. Thus, student-centred pedagogy does not only increase students' CT, but also has a positive effect on learners' test performance overall (Garside, 1996).

Another study conducted by Marin and Pava (2017) on university English teachers from Manizales indicated that CT in EFL may be assessed through debates, interviews, presentations, compositions, cooperative asks, self-assessment and self-evaluation, role plays, and project-based activities. In terms of testing, instructors reflected that EFL exams do not normally contain CT-questions and feel they are far from planning exams that test CT formally. By the same token, Brodie & Irving (2007) recommended that lecturing is not the best method of instruction, and objective tests are not the best method of assessment.

2.9 Challenges Hindering Critical Thinking Integration

Teaching critical thinking has been viewed as a concept of western university education (Barnett, 1997). This view can be quite challenging and EFL teachers need to

be prepared to face them. Hence, teaching of critical thinking is a demanding endeavour that encounters a variety of challenges. John (1994:142) referred to five challenges that might face those who take teaching critical thinking seriously:

Firstly, challenge is the misunderstanding of the concept and the difficulty of promoting it in practical teaching. Secondly, the conservative educational ideology might be a challenge too for some instructors. There are some conservative ideologies, thoughts and beliefs that still influential in critical thinking up to now. Some instructors still adherent by their attitudes and beliefs about teaching and learning. They rely on teacher - centred approach which hinders independent learning and thinking critically. The classes of these instructors tend to be strictly controlled and do not offer any chances for independent learning or inquiry-based learning. This can make the process of leading these teachers to change their attitudes and beliefs to align with progressive ideas about language teaching and learning very challenging. This is associated with the third challenge of the soft liberal position and the risks associate with it regarding the amount of freedom to be given to learners in their critical thinking and decision-making. Students should be given choices, solutions and therefore, they choose the best one to think critically for their decisions. The principle of critical thinking philosophy is not to limit influence or interfere with learners' freedom to question and criticize (Inglis, 1985). Any correction or intervention of the teacher with students' choices or decisions will be considered as imposition of his/her views on them and as a violation of critical thinking principles.

Another challenge is related to “critical and feminist pedagogy”, it's assumed that critical thinking separates between agents and object of analysis or investigation. Taking into account the sole base of reason and logic, the well-known view about critical thinking is separating emotions from reasons and thought from action. Critical thinking is not a subject of teaching and that learners can become critical thinkers through their

experiences in life. Thus, it is beneficial to construct inquire-based learning environment in a classroom and offering learners' sufficient opportunities for practicing this thinking which represent a main task for language instructors (Martin, 1992; Thayer-Bacon, 1993). Furthermore; teaching for critical thinking is not a risk-free endeavour as it implies democracy, which may involve embarrassment for instructors, students, parents or head teachers (Passmore, 1967).

Recently, Sekoubaou (2017) investigated the challenges that faced promoting critical thinking among Beninese college students. Most of the challenges were related to instructors and parents. Those instructors do not have the adequate academic background necessary to infuse critical thinking activities in their lesson plans. Moreover, the seasoned instructors can be resistant to the idea of changing their teaching style. They can find it hard to get rid of their stereotypical teaching techniques, failing to recognize that language is dynamic and its teaching requires updating one's own knowledge to adapt it to the current realities.

Another daunting challenge is the parents who cannot help their children develop thinking skills because in Sekoubaou's study (2017), all reforms are introduced following the top down modality and parents are not involved. Even if some of them are eager to help, illiteracy is a great barrier since more than 75% of the population cannot read or write. The other challenge is the status of English in that country. Even though the language is mandatorily taught from the secondary school, it is at least the third and even the fourth of the languages children learn. Not many have a good command of it and the examinations are limited to grammatical structures and text comprehension check. Many learners may not be motivated to engage in higher order thinking due to the negative backwash of the assessments. With such testing methods, as Cameron (2001) and

Richards (2006) have clearly stated, learners do not view the language as a means of communication, but rather as a set of grammatical rules and formulas to be memorized.

Similarly, Qing (2013) explored the challenges that hinder promoting critical thinking among Chinese college students and he reported that most of the challenges were related to the different roles of instructors and students. The findings of Marin and Pava (2017) reported that the main challenge for critical thinking in EFL lies in the fact that English instructors do not have enough training on this area. Seemingly, there are no professional learning communities, schools or groups leading this process in EFL. Critical thinking is widely known in other fields rather than in EFL. A constraint expressed consist of shortage of time to go through topics and content, mainly because critical thinking is not part of the syllabus, the lesson planning or the curriculum. Students' low command of English to convey their ideas is another constraint for critical thinking in EFL.

The findings of Pava's research emphasized that students hardly develop critical thinking in their mother tongue since education policies focus on tests and international exams, instead of fostering thinking. On the one hand, most instructors stated that critical thinking is hardly ever promoted in the EFL classroom due to lack of clarity related to the concept. Furthermore, instructors expressed that critical thinking in EFL is subject to having a critical thinker as a teacher and at the same time having clear institutional policies to promote it. On the other hand, some instructors averred that critical thinking is usually promoted through oral and written activities that focus on expanding information and they considered that EFL instructors use implicit critical thinking elements in their lessons, but it is often unconsciously. Furthermore, Salah (2019) investigated the challenges that faced Libyan university instructors when teaching critical thinking. Most of the challenges were related to parents, time and traditional approaches to assessment. Similarly, Al-Kindi and AL-Mekhlafi (2017) explored the challenges that EFL

instructors face when teaching critical thinking and reported that most of the challenges were related to classroom size, level of extra-curricular activity and lack of training and feedback on CT instruction. It is important to mention that the questionnaire of this study was adopted from Al-Kindi and AL-Mekhlafi study. By the same token, Aliakbaria and Sadeghdaghighib (2013) explored the views of 100 EFL Iranian instructors about the barriers to critical thinking implementation and found students' attitudes and expectations, self-efficacy constraint and teachers' lack of critical thinking as major obstacles. Koosha and Yakhabi (2013) considered this factor as responsible for the failure in implementing critical thinking in EFL contexts.

Thus, There is apparent consensus that integrating CT in language teaching and learning is crucial and needs to be fostered in the EFL contexts. Various teaching strategies can help in promoting critical thinking. Many studies reported different experiences about the implementation of this skill in teaching, all agree about the existence of serious challenges that hinder this implementation. Therefore, further research is required to identifying the aspects of ELT in which Libyan EFL university instructors integrate critical thinking and the challenges they face in this process. It is also important to explore Libyan EFL university students' views about this issue.

2.10 Summary

Thinking can be stimulated in many directions; either in positive or negative ways. Individuals need abilities of effective reasoning, analysing, problem solving, and decision making in life and industry, and critical thinking has these elements. Within higher education, critical thinking is understood to be the most important skill for improved learning. This chapter presented several definitions of critical thinking in the existed literature. Also, it viewed critical thinking in higher education and language education.

Critical thinking in the EFL context and the promoting of critical thinking in the EFL classroom were also explained. This chapter also discussed teaching strategies such as: active learning, cooperative learning, debates, role-play, problem-based learning, questioning, and writing. This chapter is concluded with the assessment of critical thinking and the challenges that might hinder critical thinking integration in EFL classroom. The following chapter will present the methodology adopted in the research in hand.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

The aim of this chapter is to discuss the research methodology that was applied in this study, including the theoretical phase as well as the practical phase. The theoretical phase is concerned with the quantitative and qualitative research methods that have been adopted. It also discusses the validity and the reliability of the research instruments. Ethical issues are also discussed in this phase. The second phase contains the research design, sampling steps, research instruments, pilot study, data collection instruments.

3.1 The Theoretical Phase

This section discusses the theoretical aspect of the study. It includes the quantitative and the qualitative research methods, validity and reliability of the research instruments. Ethical considerations are also included.

3.1.1 Quantitative Approach

This approach involves the formal objectives, information gathering about the world through the use of measurement tools such as questionnaire, to statistically quantify the phenomena being studied. According to Rajasekar et al., (2013), the quantitative research depends on the measurement of quantity or amount. The research findings are basically a set of numbers presented in tables and graphs. It is mainly objective, numerical, non-descriptive, and applies statistics and use numbers. Consequently, quantitative studies are based on the notion that reality can be measured objectively (Somekh & Lewin, 2005), and deal with causes and effects with the use of hypotheses (Byrman, 2012). The results tend to be generalizable and allow predictions to be made. They provide relatively

credible information to administrators and educators (Onwuegbuzie, 2004). The potential weakness of this approach lies in its neglect of the details of phenomena and participants' perceptions, since the focus is on hypothesis testing or generation (Byrman, 2012).

3.1.2 Qualitative Research

Qualitative research involves collecting and analysing non-numerical data to understand concepts, opinions, or experiences. This type of research enables researchers to gather in-depth insights on topics that are not well understood. Rajasekar et al., (2013) said that qualitative research is non-numerical, descriptive and uses words. The main aim of qualitative research is to get the meaning, feeling and to describe the situation. Patton (2002) argued that qualitative research is known by its aims, which relate to understanding some feature of community life, and its methods which generally produce words rather than numbers, as data for examination. Furthermore, it is used to gain an understanding of underlying reasons, opinions, and motivations, it offers perceptions into the problem or assistance to improve ideas or hypothesis. Thus, qualitative research provides in-depth understanding and description of a phenomenon with rich detail (David & Sutton, 2004). However, qualitative research studies are time-consuming, and have a tendency to reflect researchers' values and biases (Maxwell, 2012). It may not be possible to generalize the results of purist qualitative research studies to other people or contexts, or to make quantitative predictions (Outhwaite & Turner, 2007).

3.1.3 Reliability

Reliability refers to a measurement that supplies consistent results with equal values (Blumber, et al., 2005). It indicates to whether or not similar results will be gained if the data collection techniques and data analysis process are repeated with the same participants. The aim of ensuring reliability is to reduce researcher bias and enhance

validity (Ibid). In quantitative research, reliability refers to the consistency, stability and repeatability of results, that is, the result of a researcher is considered reliable if consistent results have been obtained in identical situations but different circumstances. As Graziano and Raulin (2006) said that consistency with which questionnaire or test items are answered or individual's scores remain relatively the same can be determined through the test-score method at two different times. This attribute of the instrument is actually called as stability. Dealing with a stable measure will hopefully bring out similar results. A high degree of stability displays a high degree of reliability, which means the results are repeatable. On the other hand, in qualitative research it is referred to as when a researcher's approach is consistent across different researchers and different projects (Twycross & Shields, 2004). Thus, reliability is used to evaluate the stability of measures administered at different times to the same individuals and the equivalence of sets of items from the same test (Kimberlin & Winterstein, 2008).

Questionnaires are subjected to reliability and validity terms. Therefore, the researcher tried to maintain the reliability and validity of the questionnaires by trying the questionnaire on eight instructors before the actual distribution of the questionnaire. . These instructors were asked to provide their comments, suggestions and correction if needed. The students' questionnaire was also tested through four students .

Cronbach's Alpha coefficient test was used to measure the reliability of the instrument of the study. According to Gliem and Gliem (2003:83), Cronbach's Alpha is a "measure of internal reliability" for Likert-type scales. The results are presented in the table (1) below.

Table (1): Internal reliability of the instrument

Survey	Number of Statement	Cronbach Coefficient
Instructors	22	0.806
Students	15	0.748

Since Cronbach Coefficients for the instructors and students questionnaires are 0.806 and 0.748 respectively which are more than 0.60 (the expected value), this indicates that the surveys have reliability and both samples of the study understand the questionnaire by the same way. It recommended to have a minimum Cronbach alpha value of 0.60 to “provide good support for internal consistency reliability” (Morgan et al., 2007:129). Thus, we can rely on their responses of the surveys.

Distribution of the data

Distribution of data is very important in terms of statistical tests would be used to test the questions of the study.

Table (2): The result of data distribution

Survey	Test Value	Sig
Instructors	0.089	0.200
Students	0.109	0.069

A significant is greater than 0.05, which implies that the data has normal distribution and then parametric tests will be employed for testing the hypothesis.

3.1.4 Validity

Validity is often defined as the extent to which an instrument measures what it asserts to measure (Blumber et al., 2005). Validity of a research instrument assesses the extent to which the instrument measures what it is designed to measure (Robson, 2011).

In a quantitative research, validity is the extent to which any measuring instrument measures what it is intended to measure (Thatcher, 2010). But, in qualitative research it

is when a researcher uses certain procedures to check for the accuracy of the research findings (Creswell, 2014).

Validity test is mainly divided into four types: (i) content validity; (ii) face validity; (iii) construct validity; (iv) criterion-related validity. In assessing the validity of exploratory research, face validity type was considered (Creswell, 2005 & Pallant, 2011).

- Face validity

It refers to the degree to which a test appears to measure what it claims to measure (Leedy & Ormrod, 2004). It is the simplest and least precise method of determining validity which relies entirely on the expertise and familiarity of the assessor concerning the subject matter (Nwana, 2007).

As mentioned above, efforts were made by the researcher to ensure the validity of the instruments used in the study. The two questionnaires and the interview questions were piloted before conducting the main study. Eight instructors with great experience in the field of language teaching were selected to check the structure of the sentences and clarity of questionnaire. Four students were also selected to ensure simplicity and unambiguity of items in the questionnaire. (to verify the validity)

To sum up, this study was designed to use both quantitative and qualitative research methods. It was aimed to explain and describe the aspects of teaching and challenges that Libyan EFL university instructors might encounter in their teaching. The qualitative and the quantitative methods were adopted in terms of qualifying and quantifying data collected through some instruments of data collection, namely a questionnaire and semi-structure interviews.

3.1.5 Ethical Considerations

In order to remind social researchers when conducting their research, two sets of values should be considered and balanced. These are 'the pursuit of knowledge' and 'the rights of research participants' (Neuman, 2012:53). To conduct a research professionally,

the researcher needs to design and choose techniques properly, and also to take into account the ethical implications of research activities. These issues are usually concerned with avoiding harm to participants and gaining informed consent (Bryman, 2008). Therefore, researchers should consider each ethical concern before doing their research.

The researcher requested permission from Master of Arts programme co-ordinator, to conduct this research in different universities across the country (see Appendix I). Legal and ethical issues form an important component of modern research. In this study, ethical issues were highly considered to protect the participants' rights throughout the process of administering the questionnaire surveys and the interviews. Before collecting data, all the participants who showed a willingness to take part in this study were required to sign an informed consent form (see Appendix II). The consent form explains the research purpose, procedure and how the data will be saved. In addition, the consents letter informs the participants that their participation is voluntary and would be no problem if anyone wants to withdraw from the study at any time. Also, to ensure participants' privacy, all personal data and any information including names, recordings and transcripts provided by the participants were securely stored in password protect computer, so that only the researcher can access the data.

3.2 The Practical Phase

This section includes the research design, location of the study, sampling steps, research instruments, piloting study as well as the data collection instruments.

3.2.1 Research Design

One of the foremost aspects of any research is the research design. Research design, according to Bryman (2012:715) is considered as "a framework for collection and analysis of data". The research design reveals the purpose of the survey, which can be described as

one of the following: exploration, description, explanation, and predication evaluative (Stebbins, 2001). The present study is an exploratory research. It explores the aspects of integrating CT with teaching and the challenges that Libyan EFL instructors might encounter in their teaching.

As the aim of the study was exploring Libyan EFL university instructors' integration of critical thinking in ELT. This study adopted quantitative and qualitative forms of inquiry. The quantitative tool was based on the questionnaires, whereas qualitative tool consisted of individual semi-structure interviews. The reason for adopting a mixed-approach methodology was that both qualitative and quantitative approaches have their strengths and limitations. Combing them tolerating limitations of one to be overcome by other, because there is no 'best tool' to reflect the reality, but 'each tool serves a particular purpose' (Cornish & Gillespie, 2009:802). Using mixed method is a powerful technique to gain both general and deeper sights that provide detailed answers to the research questions (Bryman, 2012). Thus, questionnaire and semi-structured interviews were employed to collect the data required. Data collection methods are discussed in detail as follows. Thus, questionnaire and semi-structured interviews were employed to collect the data required. Data collection methods are discussed in detail as follows.

Wallace(2003) emphasized that using both a questionnaire and interviews are useful research techniques when they come to eliciting opinions experiences. Thus, this study benefited from this combination in gaining insights and detailed information about students' views about their instructors' integration of critical thinking, the aspects of teaching critical thinking and challenges that might be encountered.

3.2.2 Sampling

Conducting research in social sciences often involves people and requires selecting samples. Sampling is a technique of selecting individual members or a subset of the

population to make statistical inferences from them and estimate characteristics of the whole population (Yin, 2003). The survey involves two groups of participants. The First group included language instructors who were PhD and MA holders. They were also specialised in linguistics and taught a variety of English subjects to undergraduate students in Sabratha and Zawia universities. The second group included 4th year undergraduate students. Based on the research instruments which were questionnaire and semi-structured interviews, this study intended to employ both probability and purposive samples to meet the research aims. The first technique was the probability sample, or it is known as `The Simple Random Style` where the researcher would be able to generalize the desired goals to the whole population by using questionnaires (Taguchi, 2009). 55 Libyan EFL universities lecturers participated in this research. They were male and female instructors. 60 undergraduate students across different universities participated as well in this survey. They were mostly female students. However, a purposive sample is a type of non-probability sampling method. This sampling method was utilized to access a wide spread sample. This is important for enhancing the generalizability of the results (Dawson, 2002). Likewise, this study relies on the idea of saturation (Robson, 2011). When repetition of experiences starts to occur, the researcher should stop the interviews, this indicates that a `Saturation point` is reached, that is, no new information is being provided by continuing (Dawson, 2002). This technique is known as snowball sample. The researcher conducted semi-structured interviews with six male and female instructors.

3.2.3 Research Instruments

The mixed-method design was adopted in order to investigate the issues researched from different standpoints (Cohen et al., 2007). In the social sciences, more than one research method or technique may be used in a complementary design in order to obtain trustworthy findings. Triangulation is one of the most beneficial features of the mixed-

methods approach. Berg (2007) explained that triangulation refers to the use of mixed methods to investigate a single phenomenon. The findings obtained from different research methods can therefore be used to cross-validate each other; in other words, the results obtained from using one method may be either confirmed or contradicted by the results obtained from using the other one (Cohen, 2007). Consequently, a questionnaire and semi-structured interviews were considered as suitable data collection tools for this research. A questionnaire is a means of eliciting the feelings, beliefs, experiences, perceptions, or attitudes of individuals (Kumar, 2004). Like any other data collection tools, questionnaires might have some limitations such as low responses level and unwillingness to complete the questionnaire. Accordingly, semi-structured interviews. as a second method was employed. Denscombe (2010:65) stated that “the depth of information obtained by interviews produces best value for many meaning, when what they [interview participants] offer is an insight they have, as people in a special position to know”. Hence, in this study, qualitative and quantitative data were obtained to gain an understanding of the lecturers` knowledge and awareness of critical thinking skill and challenges they might encounter in their teaching. It was hoped that the adopted research instruments would guarantee valid and reliable data.

3.2.4 Pilot Study

Before the actual commence of the main study, a pilot study was conducted to help the researcher to reduce any ambiguity for participants. Williamson (2004:307-312) defined the pilot study as “a small experiment designed to test logistics and gather information prior to a larger study, in order to improve the latter’s quality and efficiency”. This means that, using a pilot study can reveal deficiencies in the design of proposed experiment or procedure, and these can then be addressed before time and resources are expanded on large scale studies. Therefore, data collection instruments should always be

tried before the actual data collection in order to verify their suitability for the targeted participants. As Creswell (2008:402) stated, “A pilot test of a questionnaire or interview survey is a procedure in which a researcher makes changes in an instrument based on feedback that receive from a small number of individuals who complete and assess the instrument”.

In the current study, the questionnaire was piloted to examine the structure, logical flow of questionnaire, clarity, length and whether or not comprehensible to undergraduate students and lecturers. Semi-structured interviews were also piloted to investigate whether the participants could answer the questions and how they felt about being interviewed.

The researcher conducted the pilot study on 10th December 2019 to explore the context and decide on what actions to take in research design and that took two weeks. After obtaining permission from MA programme co-ordinator for the pilot study, the investigator started to seek the consent letters from the English departments of Zawia university. Then the consent letters were distributed to be signed by the instructors if they agreed to participant in the pilot study. After that, the investigator provided an explanation of the purpose of the study. Eight instructors male and female agreed to participate in the survey. The students' questionnaire was also tested through four students, to ensure clarity, simplicity and unambiguity of each item in the questionnaire. Most of students finished questionnaire within 15 minutes. It is worth noting that face validity of the questionnaire was achieved due to the feedback obtained. The participant's feedback confirmed that the questionnaire items were clear and easy to follow. Based on the feedback obtained from the instructors, the interview schedule was slightly modified, and the question 'How do you to assess your students` critical thinking?' was added.

3.3 Data Collection Instruments

In this section, the data collection instruments and the process of data collection used are evaluated. The data were collected between 5th January and 12th March 2020, in two phases: Phase1 consisted of a questionnaire of two versions for both instructors and students. This was followed by an in-depth semi-structured interviews with lecturers.

3.3.1 Instructors` Questionnaire

Questionnaires are perhaps the most widely used for obtaining more evidence and information on the research work with economy in time and effort. According to Dornyei and Taguchi (2010:1) “The popularity of questionnaires is due to the fact that they are easy to construct, extremely versatile, and uniquely capable of gathering a large amount of information quickly in a form that is readily process-able”. The instructors’ questionnaire was designed to gain information about the actual practice of integrating critical thinking in ELT (see appendix III). Close-ended questionnaire was handed out to the sample of instructors. The questionnaire used in this study was adapted from Al-Kindi and AL-Mekhlafi (2017) to identify the aspects of integration and the challenges of teaching critical thinking. The items 2,7,10,14,15,16 were developed by the researcher through reviewing the relevant literature.

Rating scales are commonly used in the social sciences and with attitude scores. Such instrument employed a Likert-type scale, which requires an individual to respond to a series of statements by indicating whether he or she strongly agrees (SA), agrees (A), is undecided (U), disagrees (D),or strongly disagrees (SD). Each response is assigned a point value, and an individual’s score (Gay et al., 2009). Guilford (1954) stated that the optimal number of categories is a matter of empirical determination depending upon the situation. Mattel and Jacoby (1971), however, determined that the reliability and validity of an instrument is not affected by the number of scale points used for the items. Thus, a

five-point agreement scale was employed to measure instructors` practice of integrating CT and the obstacles they might encounter in their teaching.

Instructors` questionnaire included twenty-two items to rate the extent of their agreement with each one across a 5-point Likert scale (Strongly Disagree=1 to Strongly Agree=5). The items of the questionnaire were developed according to the objectives of the study. It consisted of two sections. The items in the first section investigated the aspects of teaching that Libyan EFL university instructors integrate critical thinking in. For example, items (1-11) addressed the instructors` questioning that promote critical thinking in classroom. Items (12-16), addressed the instructors` incorporation of critical thinking strategies in classroom. The second part was aimed to address the challenges that instructors might encounter in integrating critical thinking in their teaching (items 17-22). In this questionnaire, the participants were asked to select one option. The consent letter was attached to the questionnaire. Once the participants agreed to participate, they were welcomed to answer the questionnaire.

The instrument was administered in the middle of January 2020. After receiving approval from the university, the researcher visited the agreed universities. The investigator introduced herself to the heads of the departments and explained the purpose of the survey. They expressed their willingness to cooperate, and encouraged the instructors to help. The first step was meeting the instructors and explaining the purpose and nature of my study. Although they were busy with their schedule and overloaded in their syllabus, I managed to meet them for a short coffee break. The questionnaire was handed to eighty (80) instructors in different colleges from Zawia and Sabratha universities. Fifty-five questionnaire were handed back. Some participants did not return it. One limitation of questionnaires is the often low response rate (Bell, 1999).

3.3.2 Students` Questionnaire

The purpose of questionnaire was to analyse students` feedback about their instructors` integration of critical thinking skill in the classroom (see appendix IV). Close-ended questionnaire was handed out to the sample of students. It consisted of 15 items across 5 point likert scales, this enabled the students to answer it more easily and saved time (Cohen et al., 2011). Those items addressed the instructors` questions and strategies that promote CT. It was required by students to select one option.

After receiving instructors` questionnaire, the next step was to meet the students. The researcher`s focus was on learners in their last semester of English Language programme. One reason for that was these students have been introduced to critical thinking through their pervious courses. Another reason was their ability to communicate in English. After gaining the permission of the instructors of the class, the investigator entered the classroom with instructors (Najawa, kholoud and Sabah). All the students were interested in participating. The researcher explained the aim of the study and the content of the questionnaire. Due to high enthusiasm and interest the participates had shown, high return rates of questions were expected. Out of seventy students ,sixty students completed the questionnaire after four sessions of classroom. Based on the findings of the pilot study, students were provided 15 minutes to complete this questionnaire. The data collection process was in lasted six weeks.

3.3.3 Semi-Structure Interview

An interview is an appropriate technique of gathering people`s “perceptions, meanings, definitions of situations and constructions of reality” and one of the most effective methods of understanding them (Punch, 2009:144). From different types of interviews, the researcher decided to conduct semi-structure interviews to collect her research qualitative data. Considering the fact that in semi-structured interviews, interviewers are able to ask

extra questions, to gain more detailed information, or to follow a view point made by the participants (Bryman, 2012). Semi-structured interviews were determined to be the most appropriate for the current study. The most important aspect of those interviews is that participants are able to express their ideas fully and freely, thus providing more data to draw the meaning (Fontana & Frey, 2005). To obtain more insights of the instructors' knowledge, opinions and beliefs, semi-structured interviews were considered to be best as they provided flexibility (Bryman, 2012; Denscombe, 2010), and data could be easily compared with generalizations and themes could be easily drawn. However, Cohen, et al., (2011) caution about the shortfalls of 'standardized wording of questions' as naturalness in answers and questions is limited. Bryman, (2012) advises the new researchers to refrain from leading the interviewees to avoid facing unexpected contingencies due to lack of interview skills and experiences. With these cautions in mind, interviews were scheduled with educators. A list of questions for the research interviews, called 'interview schedule', was prepared and piloted with instructors at the researcher's university. Pilot study, as suggested by Wellington (2015), offered the research a good and beneficial practice in conducting interviews. Piloting proved to be beneficial (ibid).

In the preparation of the interview questions, considerable caution was taken in producing the open-ended questions, and in expecting the participants' answers. The interview schedule or initial interview questions (Appendix IA) consisted of a pre-determined set of open-ended questions as a guide to let the interview flow like a natural conversation. They were also beneficial to guarantee that information captured was efficient and comprehensive. These questions increased the new researcher's confidence and enabled her to concentrate on the participant responses instead of focusing on what to ask and how to move to the next question (Dawson, 2002). There were three set of questions included in the interview. The first set of questions was concerned with

instructors' perception about critical thinking, for example how do you define critical thinking and what do you think about integrating critical thinking in language teaching and learning. These questions were designed to be short and head to the point, to help the interviewees to feel comfortable and relaxed. The second set was about aspects of teaching do lectures' integrate critical thinking in it: In what aspects of your teaching do you integrate critical thinking and from your experience, what activities do you find useful for promoting CT among students. The third set was about the challenges that might encounter them during this process: what challenges have you encountered in implementing CT in your teaching and what strategies have you followed for overcoming these challenges? The fourth set was about assessments of critical thinking: How do assess your students' critical thinking? The interviews for current study were audio-recorded. This choice was helpful as it enabled the researcher to examine the data later, after collection, to design check list and complete her notes.

Establishing rapport with the interviewees is vital (Cohen et al., 2011). The quality and quantity of information produced are influenced by the interaction between interviewees and interviewers (Kumar, 2004). A good interaction can elicit more information appropriate to the research topic, while poor interaction may fail to produce rich and relevant information. The initial two minutes of each interview were allocated for a brief social involvement. This strategy offered a pleasant and comfortable environment, which in turn facilitated the interaction throughout the interviews. Fontana and Frey (2000) add that the researcher should put himself in the shoes of the participant and see the situation from the participant's point of view. Tension might be escalated throughout the interview because both the interviewer and the interviewee take place face-to-face and are dialogic. Participants might find it embarrassing to talk to a person they do not know about their concerns, opinions and feelings. In order to make the participants in this study feel relaxed, the researcher explained the purpose and process of the interview, and emphasized

the fact that the audio-taped data would be analysed anonymously by the researcher only. The interviewees were also informed that they had the right to skip questions they did not like, and to withdraw at any time. The interviews were conducted in English in a classroom with an audio-recorder on the desk. Permission for audio recording was obtained before starting the interviews. Participants received the interview schedule one week in advance to give them time to think deeply in the questions to be asked. Six instructors volunteered to be interviewed after their lectures on different days. Each participant was interviewed for approximately twelve minutes.

The interview was conducted in March 2020. The pre-determined questions were questioned in the same order for all participants, in addition other questions emerged from the dialogue between the interviewer and interviewee. Throughout the interviews, probes and prompts were used to obtain as much data as possible. King and Horrocks (2010:40) used the term 'probes' to refer to the follow-up questions to encourage the interviewees to elaborate on their initial responses, while 'prompts' refer to short complementary questions to explain the type of information requisite when the respondents appear uncertain about the initial question. All the interviews were transcribed by the researcher herself (see Appendix IIA). The main drawback which was experienced with this method was that the transcription was very time-consuming. Bryman (2012:717), described transcription as "the written translation of recorded interview or focus group session". To maintain precision and accuracy of the data, the researcher transcribed each recording.

3.4 Summary

In this chapter, the methodological basis of the study is described in details, including the quantitative and qualitative research, the validity and the reliability of the study and ethical considerations. Research design, sample, research instruments, pilot study, data collection instruments were also included.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Introduction

The data obtained from the questionnaires and the semi-structured interviews are analysed and presented in two separate sub-sections.

4.1 Quantitative Analysis

The quantitative data were analysed after the data collection was completed. Participants' responses were inserted into the Statistical Package for the Social Sciences (SPSS) software. For more details, see (appendix A).

This study had three research questions. Each one represented similar statistical analysis frequencies, arithmetic means which is the average of a given set of numbers, standard deviations which is a statistic that measures the dispersion of a data set relative to its mean. It also represented rankings means values of the statement responses from highest to smallest to indicate the level of importance (Fadil, 2002). Moreover, the results were laid out in a descriptive manner.

The findings obtained were displayed in two parts: The first part presented the analysis of instructors' questionnaire, which referred to research questions one and two: In what aspects of teaching do Libyan EFL university instructors integrate critical thinking? What are the challenges encountered by these instructors in integrating critical thinking? The second part covered the analysis of students' questionnaire and referred to the third research question: What are students' view about their instructors' integration of critical thinking?

4.1.1 Analysis` Statements for Instructors` questionnaire

The cut point between agree and disagree in terms of integrating critical thinking is 3. Therefore, the researcher compared the number of instructors whom their responses less than or equal 3 to the instructors whom their responses more than 3 to see if there was significance or not. If the instructors whom their responses more than 3 are significantly more than instructors whom their responses less than or equal 3, then it can be said that instructors do integrate critical thinking. If it is not significant, then it can be said that instructors do not or rarely integrate critical thinking. We will apply the above strategy for each statement.

1) I ask thoughtful, open-ended questions.

Table (3): Samples` responses to question 1

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
1	4	7.3%	4	7.3%	8	14.5%	27	49.1%	12	21.8%

Table (3) displays the results of question (1) regarding asking open-ended questions. The results show that 7.3% of the instructors strongly disagree, and 7.33% disagree. While 14.5% of the instructors neither agree nor disagree. When the half of the instructors 49.1% agree and 21.8% was strongly agree with the idea of asking thoughtful, open-ended questions.

Table (4): results of proportion test of question 1

Statement	Number ≤ 3	Number > 3	Test Significant
1	16	39	0.003

Table 4 above shows that test significance = 0.003, which is less than 0.05. This means we reject the null hypothesis and conclude that the asking thoughtful, open-ended questions were highly used by the participants.

2) I ask 'why' and 'how' questions to encourage students to think.

Table (5): Samples` responses to question 2

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
2	1	1.8%	2	3.6%	5	9.1%	20	36.4%	27	49.1%

Table (5) shows that 1.8% of the instructors strongly disagree with asking 'why' and 'how' questions to encourage students to think, whereas 3.6% of the instructors disagree. Only 9.1% of the instructors neither agree nor disagree. About 36.4% of the instructors ask 'why' and 'how' questions to encourage students to think. Nearly 49.1% of the instructors strongly agree with asking 'why' and 'how' questions to encourage students to think.

Table (6): results of proportion test of question 2

Statement	Number ≤ 3	Number > 3	Test Significant
2	8	47	0.000

Table 6 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that asking 'why' and 'how' questions to encourage students to think were highly used by the research participants.

3) I ask questions that require students to analyse texts.

Table (7): Samples` responses to question 3

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
3	1	1.8%	5	9.1%	12	21.8%	23	41.8%	14	25.5%

Table (7) presents that 1.8% of the instructors strongly disagree with asking questions that require students to analyse texts whereas, 9.1% of them disagree. About 21.8% of the instructors neither agree nor disagree with the notion of asking questions that require

students to analyse texts. In terms of agreement, 41.8% of the instructors agree and more precisely 25.5% of them strongly agree with the idea of asking questions that requires students to analyse texts.

Table (8): results of proportion test of question 3

Statement	Number ≤ 3	Number > 3	Test Significant
3	18	37	0.014

Table 8 above shows that test significance = 0.014, which is less than 0.05. This means that we reject the null hypothesis and conclude that asking questions that require students to analyse texts were highly used by the instructors.

4) I ask students to elaborate on their responses.

Table (9): Samples` responses to question 4

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
4	1	1.8%	2	3.6%	10	18.2%	29	52.7%	13	23.6%

Table (9) indicates that 1.8% of the instructors strongly disagree with asking students to elaborate on their responses, and 3.6% of the instructors disagree. Although 18.2% of the instructors neither agree nor disagree with the suggestion mentioned in the item, still 52.7% of the instructors agree, and 23.6% also strongly agree with the idea.

Table (10): results of proportion test of question 4

Statement	Number ≤ 3	Number > 3	Test Significant
4	13	42	0.000

Table 10 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis, and conclude that asking students to elaborate on their responses were highly used by the participants.

5) I ask challenging questions that promote critical thinking.

Table (11): Samples` responses to question 5

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
5	0	0%	4	7.3%	10	18.2%	26	47.3%	15	27.3%

Table (11) indicates that 0% of the instructors strongly disagree, 7.3% of them disagree with asking challenging questions that promote critical thinking. Just 18.2% of the instructors neither agree nor disagree with asking challenging questions that promote critical thinking. Again, 47.3% of the instructors agree, whereas 27.3% of them strongly agree with the idea.

Table (12): results of proportion test of question 5

Statement	Number ≤ 3	Number > 3	Test Significant
5	14	41	0.000

Table 12 above shows that test significance = 0.000, which is less than 0.05. This means that we reject the null hypothesis and conclude the challenging questions that promote critical thinking were highly used by the instructors.

6) I encourage students to draw general conclusions of what has been discussed.

Table (13): Samples` responses to question 6

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
6	2	3.6%	3	5.5%	9	16.4%	19	34.5%	22	40%

Table (13) shows that 3.6% of the instructors strongly disagree with encouraging students to draw general conclusions of what has been discussed, while only 5.5% of the instructors disagree. Nearly 16.4% of the instructors neither agree nor disagree. Whereas 34.5% of the

instructors agree and 40% strongly agree with encouraging students to draw general conclusions of what has been discussed.

Table (14): results of proportion test of question 6

Statement	Number ≤ 3	Number > 3	Test Significant
6	14	41	0.000

Table 14 above shows that the test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that the encouraging students to draw general conclusions of what has been discussed were highly used by the instructors.

7) I ask questions that provide opportunities for students to respond with critical thinking skills to assess problems.

Table (15): Samples` responses to question 7

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
7	6	10.9%	2	3.6%	8	14.55	31	56.4%	8	14.5%

Table (15) shows that 10.9% of the instructors strongly disagree with the idea of asking questions that provide opportunities for students to respond to critical thinking skills while only 3.6% of them disagree. The results also revealed that 14.55% of the instructors neither agree nor disagree. While 56.4% of the instructors ask questions that provide opportunities for students to respond to critical thinking and 14.5% of them strongly agree with the idea as well.

Table (16): results of proportion test of question 7

Statement	Number ≤ 3	Number > 3	Test Significant
7	16	39	0.003

Table 16 above shows that test significance = 0.003, which is less than 0.05. This means we reject the null hypothesis and conclude that the questions that provide opportunities for students to respond with critical thinking skills to assess problems were highly used by the research participants.

8) I ask questions that require students to link their previous knowledge to new situations.

Table (17): Samples` responses to question 8

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
8	0	0%	2	3.6%	10	18.2%	19	34.5%	24	43.6%

Table (17) shows that 0% of the instructors strongly disagree with asking questions that require students to link their previous knowledge to new situations, and only 3.6% of them disagree. While 18.2% of the instructors neither agree nor disagree with asking questions that require students to link their previous knowledge to new situations. Nearly, 34.5% of the instructors agree and 43.6% strongly agree with idea.

Table (18): results of proportion test of question 8

Statement	Number ≤ 3	Number > 3	Test Significant
8	12	43	0.000

Table 18 above shows that the test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that the questions that require students to link their previous knowledge to new situations were highly used by the instructors.

9) I ask students to employ critical thinking in their writing assignments.

Table (19): Samples` responses to question 9

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
9	1	1.8%	6	10.9%	18	32.7%	23	41.8%	7	12.7%

Table (19) shows that 1.8% of the instructors strongly disagree with asking students to employ critical thinking in their writing assignments, whereas 10.9% of them disagree. The study revealed also 32.7% of the instructors neither agree nor disagree with asking students to employ critical thinking in their writing assignments. The results show that 41.8% of the instructors agree although 12.7% of them strongly agree with the same idea.

Table (20): Samples` responses of question 9

Statement	Number ≤ 3	Number > 3	Test Significant
9	25	30	0.590

Table 20 above presents that the test significance = 0.590, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that the students employ critical thinking in their writing assignments were weakly used by the instructors.

10) I raise controversial issues and topics to promote critical thinking in-class discussion.

Table (21): Samples` responses to question 10

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
10	3	5.5%	1	1.85%	11	20%	21	38.2%	19	34.5%

Table (21) shows that 5.5% of the instructors strongly disagree with raising controversial issues and topics to promote critical thinking in-class discussion, while only 1.85% of them disagree. The results also revealed that 20% of the instructors neither agree nor disagree.

About 38.2% of the instructors agree with raising controversial issues and topics to promote critical thinking in-class discussion, and 34.5% strongly agree with the idea as well.

Table (22): results of proportion test of question 10

Statement	Number ≤ 3	Number > 3	Test Significant
10	15	40	0.001

Table 22 above shows that test significance = 0.001, which is less than 0.05. This means we reject the null hypothesis and conclude that the raising controversial issues and topics to promote critical thinking in-class discussion were highly used by the instructors.

11) I encourage students to think deeply about what they read.

Table (23): Samples` responses to question 11

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
11	0	0%	2	3.6%	9	16.4%	21	38.2%	23	41.8%

Table (23) shows that 0% of the instructors strongly disagree with encouraging students to think deeply about what they read, only 3.6% of them disagree. While 16.4% of the instructors neither agree nor disagree with encouraging students to think deeply about what they read. Still 38.2% of the instructors agree, and 41.8% strongly agree with encouraging students to think deeply about what they read.

Table (24): results of proportion test of question 11

Statement	Number ≤ 3	Number > 3	Test Significant
11	11	44	0.000

Table 24 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis, and it can be concluded that the encouraging students to think deeply about what they read were highly used by the instructors.

12) I encourage students to work in groups to discuss their ideas and points of view.

Table (25): Samples` responses to question 12

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
12	1	1.8%	2	3.6%	9	16.4%	23	41.8%	20	36.4%

Table (25) shows that 1.8% of the instructors strongly disagree with encouraging students to work in groups to discuss their ideas and points of view, whereas 3.6% disagree. The results also revealed 16.4% of the instructors neither agree nor disagree with encouraging students to work in groups to discuss their ideas and points of view. The results also show 41.8% of the instructors agree with encouraging students to work in groups to discuss their ideas and points of view. Although 36.4% of the instructors strongly agree with the same idea.

Table (26): results of proportion test of question 12

Statement	Number ≤ 3	Number > 3	Test Significant
12	12	43	0.000

Table 26 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that the encouraging students to work in groups to discuss their ideas and points of view were highly used by the instructors.

13) I engage students in structured discussion.

Table (27): Samples` responses to question 13

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
13	2	3.6%	3	5.5%	8	14.5%	19	34.5%	23	41.8%

Table (27) shows that 3.6% of the instructors strongly disagree with engaging students in structured discussion, when only 5.5% of them disagree. Nearly 14.5% of the instructors neither agree nor disagree with engaging students in structured discussion. When 34.5% of

the instructors agree, and 41.8% strongly agree with engaging students in structured discussion.

Table (28): results of proportion test of question 13

Statement	Number ≤ 3	Number > 3	Test Significant
13	13	42	0.000

Table 28 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that engaging students in structured discussion were highly used by the instructors.

14) I engage students in intellectual tasks and activities.

Table (29): Samples` responses to question 14

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
14	2	3.6%	3	5.5%	14	25.5%	18	32.7%	18	32.7%

Table (29) shows that 3.6% of the instructors strongly disagree with engaging students in intellectual tasks and activities, whereas only 5.5% disagree. Nearly 25.5% of the instructors neither agree nor disagree with engaging students in intellectual tasks and activities. About 32.7% of the instructors agree, and 32.7% strongly agree with engaging students in intellectual tasks and activities.

Table (30): results of proportion test of question 14

Statement	Number ≤ 3	Number > 3	Test Significant
14	19	36	0.030

Table 30 above shows that test significance = 0.030, which is less than 0.05. This means we reject the null hypothesis and conclude that engaging students in intellectual tasks and activities were highly used by the instructors.

15) I apply debate in classroom to promote critical thinking.

Table (31): Samples` responses to question 15

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
15	0	0%	6	10.9%	12	21.8%	22	40%	15	27.3%

Table (31) shows that 0% of the instructors strongly disagree. 10.9% of the instructors disagree with applying debate in classroom to promote critical thinking. Just 21.8% of the instructors neither agree nor disagree with applying debate in classroom to promote critical thinking. Again 40% of the participants agree, whereas 27.3% of the instructors strongly agree with the idea.

Table (32): results of proportion test of question 15

Statement	Number ≤ 3	Number > 3	Test Significant
15	18	37	0.014

Table 32 above shows that test significance = 0.014, which is less than 0.05. This means we reject the null hypothesis and conclude that applying debate in classroom to promote critical thinking was highly used by instructors.

16) I ask students to define their perspective views about certain issues through 'role play' activities.

Table (33): Samples` responses to question 16

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
16	3	5.5%	5	9.1%	19	34.5%	20	36.4%	8	14.5%

Table (33) shows that 5.5% of the instructors strongly disagree with asking students to define their perspective views about certain issues through 'role play' activities, and 9.1% of them disagree. Although 34.5% of the instructors neither agree nor disagree with the

suggestion mentioned. Still 36.4% of the instructors agree, and 14.5% of them also strongly agree with the idea.

Table (34): results of proportion test of question 16

Statement	Number ≤ 3	Number > 3	Test Significant
16	27	28	0.932

Table 34 above shows that test significance = 0.932, which is greater than 0.05. This means we do not reject the null hypothesis, and conclude that the students define their perspective views about certain issues through 'role play' activities were rarely used by the instructors.

17) Lecture time is not sufficient for integrating critical thinking activities.

Table (35): Samples` responses to question 17

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
17	8	14.5%	8	14.5%	13	23.6%	15	27.3%	11	20%

Table (35) shows that 14.5% of the instructors strongly disagree as well as 14.5% disagree with the idea that lecture time is not sufficient for integrating critical thinking activities. Whereas 23.6% of the instructors neither agree nor disagree. About 27.3% of the instructors agree and 20% strongly agree that lecture time is not sufficient for integrating critical thinking activities.

Table (36): results of proportion test of question 17

Statement	Number ≤ 3	Number > 3	Test Significant
17	29	26	0.788

Table 36 above shows that test significance = 0.788, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that the instructors agree that lecture time was not sufficient for integrating critical thinking activities.

18) Large classroom size does not help for implementing critical thinking activities.

Table (37): Samples` responses to question 18

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
18	10	18.2%	4	7.3%	15	27.3%	8	14.5%	18	32.7

Table (37) shows that 18.2% of the instructors strongly disagree with the notion that large classroom size does not help for implementing critical thinking activities. When 7.3% of the instructors disagree. Nearly 27.3% of the participants neither agree nor disagree, while 14.5% of the instructors agree and 32.7% of the instructors strongly agree with the notion that large classroom size does not help for implementing critical thinking activities.

Table (38): results of proportion test of question 18

Statement	Number ≤ 3	Number > 3	Test Significant
18	29	26	0.788

Table 38 above shows that test significance = 0.788, which is greater than 0.05. This means that we do not reject the null hypothesis and conclude that the instructors agree that large classroom size does not help for implementing critical thinking activities.

19) Assessment policy does not focus on developing students' critical thinking.

Table (39): Samples` responses to question 19

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
19	3	5.5%	13	23.6%	9	16.4%	15	27.3%	15	27.3%

According to table (39), 5.5% of the instructors strongly disagree that the assessment policy does not focus on developing students' critical thinking, whereas 3.6% of the instructors' disagree. About 16.4% of the instructors neither agree nor disagree with the

notion that assessment policy does not focus on developing students' critical thinking. In term of agreement, 27.3% of the instructors agree and also 27.3% of the instructors strongly agree with the same idea.

Table (40): results of proportion test of question 19

Statement	Number ≤ 3	Number > 3	Test Significant
19	25	30	0.590

Table 40 above shows that the test significance = 0.590, which is greater than 0.05. This means that we do not reject the null hypothesis and conclude that teachers agree that the assessment policy does not focus on developing students' critical thinking.

20) Integrating critical thinking is not a common practice for my colleagues.

Table (41): Samples' responses to question 20

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
20	5	9.1%	5	9.1%	12	21.8%	10	18.2%	23	41.8%

Table (41) shows that 9.1% of the instructors strongly disagree, and similarly 9.1% of the instructors disagree that integrating critical thinking is not a common practice for university instructors. While 21.8% of the instructors neither agree nor disagree with the suggestion mentioned in the item. Nearly 18.2% of the instructors agree and 41.8% of them strongly agree with integrating critical thinking is not a common practice for university instructors.

Table (42): results of proportion test of question 20

Statement	Number ≤ 3	Number > 3	Test Significant
20	22	33	0.177

Table 42 above shows that test significance = 0.177, which is greater than 0.05. This means we do not reject the null hypothesis, and conclude that the instructors agree that integrating critical thinking is not a common practice for university instructors.

21) There is no staff training for integrating critical thinking.

Table (43): Samples` responses to question 21

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
21	3	5.5%	5	9.1%	16	29.1%	10	18.2%	21	38.2%

Table (43) shows that 5.5% of the instructors strongly disagree. 9.1% of the instructors disagree with the notion that there is no staff training for integrating critical thinking. Whereas 29.1% of the instructors neither agree nor disagree. 18.2% of the instructors agree and 38.2% strongly agree with the same idea.

Table (44): Samples` responses of question 21

Statement	Number ≤ 3	Number > 3	Test Significant
21	24	31	0.419

Table 44 above shows that test significance = 0.419, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that instructors agree that there is no staff training for integrating critical thinking.

22) It is not easy to engage students in critical thinking activities.

Table (45): Samples` responses to question 22

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
22	6	10.9%	8	14.5%	10	18.2%	17	30.9%	14	25.5%

Table (45) shows that 10.9% of the instructors strongly disagree with the idea that it is not easy to engage students in critical thinking activities, whereas 14.5% of the instructors disagree. 18.2% of them neither agree nor disagree. When 30.9% of the instructors agree, and 25.5% strongly agree with the idea that it is not easy to engage students in critical thinking activities.

Table (46): results of proportion test of question 22

Statement	Number ≤ 3	Number > 3	Test Significant
22	24	31	0.419

Table 46 above shows that test significance = 0.419, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that instructors agree that it is not easy to engage students in critical thinking activities.

Table (47): responses of the instructors` sample about the importance of integrating critical thinking.

Statement	Mean	Standard Deviation	Level of Use	Rank
1	3.71	1.117	High	15
2	4.27	.912	Very High	1
3	3.80	.989	High	12
4	3.93	.858	High	9
5	3.95	.870	High	7
6	4.02	1.063	High	6
7	3.60	1.132	High	16
8	4.18	.863	High	3
9	3.53	.920	High	17
10	3.95	1.061	High	8
11	4.18	.841	High	2
12	4.07	.920	High	4
13	4.05	1.061	High	5
14	3.85	1.061	High	10
15	3.84	.958	High	11
16	3.45	1.033	High	19
17	3.24	1.333	Moderate	22
18	3.36	1.470	Moderate	21
19	3.47	1.274	High	18
20	3.75	1.336	High	14
21	3.75	1.220	High	13
22	3.45	1.317	High	20

Table 47 presents that all the means are between 3.24 and 4.27, which indicates that the level of the importance of integrating critical thinking by instructors in their teaching is from moderate to very high. One of the statements says that “*I ask ‘why’ and ‘how’ questions to encourage students to think*” ranked first with a mean of 4.27 and standard deviation 0.912 which indicates that the level of using this statement by of instructors is very high. Next, statement says “*I encourage students to think deeply about what they read*” ranked second with a mean of 4.18 and standard deviation 0.841, which indicates that the level of using this statement is high. On the other hand, another statement says “Lecture time is not sufficient for integrating critical thinking activities” ranked last with a mean of 3.24 and standard deviation 1.333, which indicates that the level of this statement is moderate.

Hypothesis Testing

H0: The level of awareness about the importance of integrating critical thinking in their teaching was average or less.

H1: The level of awareness about the importance of integrating critical thinking in their teaching was high or more.

The purpose of the hypothesis above is to provide a statistical evidence about the level of awareness about the importance of integrating critical thinking in their teaching.

To test the hypothesis above, one sample test has been used and the result is shown in the table below:

Table (48): the result of one sample t test

Variable	N	Hypnotized Mean	Mean	Standard Deviation	T test	Sig
awareness about the importance of integrating critical thinking	55	3	3.78	0.463	12.537	0.000

Since $\text{sig}=0.000 < 0.05$, we reject H0 and conclude that the level of awareness about the importance of integrating critical thinking in their teaching is high or more.

4.1.2 Analysis of Students' Questionnaire

This part displays the results of the students' questionnaires which presenting third question: What is students' view about their instructors' integration of critical thinking?

1) My instructor asks me thoughtful, open-ended questions.

Table (49): Students' responses to question 1

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
1	4	6.6%	10	16.4%	12	19.7%	28	45.9%	7	11.5%

Table (49) shows that 6.6% of the students strongly disagree that their teachers ask them thoughtful, open-ended questions, when 16.4% of them disagree. 19.7% of the students neither agree nor disagree that their instructors ask them thoughtful, open-ended questions. However, 45.9% agree and more precisely 11.5% of them strongly agree that their instructors ask open-ended questions.

Table (50): results of proportion test of question 1

Statement	Number ≤ 3	Number > 3	Test Significant
1	26	35	0.306

Table 50 shows that test significance = 0.306, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that the students' views about asking thoughtful, open-ended questions were infrequently used by the instructors.

2) My instructor uses 'how' and 'why' questions to encourage me to think.

Table (51): Students' responses to question 2

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
2	2	3.3%	8	13.1%	11	18%	33	54.1%	7	11.5%

Table (51) shows that 3.3% of the students strongly disagree that their instructors uses 'how' and 'why' questions to encourage them to think, and only 13.1% of the students disagree. While 18% of the students neither agree nor disagree that their instructors use 'how' and 'why' questions to encourage them to think. The results show that 54.1% of the students agree although 11.5% of them strongly agree with the same idea.

Table (52): results of proportion test of question 2

Statement	Number ≤ 3	Number > 3	Test Significant
2	21	40	0.020

Table 52 above shows that the test significance = 0.020, which is less than 0.05. This means we reject the null hypothesis and conclude that students' view about using 'how' and 'why' questions to encourage them to think were highly used by their instructors.

3) My instructor asks me to analyse information.

Table (53): Students' responses to question 3

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
3	7	11.5%	9	14.8%	14	23%	26	42.6%	5	8.2%

Table (53) shows that 11.5% of the students strongly disagree, and 14.8% of the students disagree with the notion that their teachers ask them to analyse information. Whereas 23% of them neither agree nor disagree. About 42.6% of the students agree that their instructors ask them to analyse information and 8.2% strongly agree with the same idea as well.

Table (54): results of proportion test of question 3

Statement	Number ≤ 3	Number > 3	Test Significant
3	30	31	0.768

Table above shows that test significance = 0.768, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that students' view about asking them to analyse information were infrequently used by their instructors.

4) My instructor asks me to elaborate my response.

Table (55): Students' responses to question 4

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
4	0	0%	8	13.1%	11	18%	32	52.5%	10	16.4%

Table (55) shows that 0% of the students strongly disagree that their instructors ask them to elaborate their response, and only 13.1% of the students disagree. Just 18% of the students neither agree nor disagree that their instructors ask them to elaborate on their responses, while half of them 52.5% agree and 16.4% strongly agree that their instructors ask them to elaborate on their responses.

Table (56): results of proportion test of question 4

Statement	Number ≤ 3	Number > 3	Test Significant
4	19	42	0.004

Table 56 above shows that test significance = 0.004, which is less than 0.05. This means we reject the null hypothesis and conclude that students' view about asking them to elaborate on their responses were highly used by instructors.

5) My instructor asks challenging questions that promote critical thinking.

Table (57): Students' responses to question 5

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
5	2	3.3%	10	16.4%	12	19.7%	24	39.3%	13	21.3%

Table (57) shows that 3.3% of the students strongly disagree, and only 16.4% disagree that their instructors ask challenging questions that promote critical thinking. 19.7% of the students neither agree nor disagree that their instructors ask challenging questions that promote critical thinking. Whereas 39.3% of the students agree and 21.3% of the students strongly agree with the idea.

Table (58): results of proportion test of question 5

Statement	Number ≤ 3	Number > 3	Test Significant
5	24	37	0.124

Table 58 above shows that test significance = 0.124, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that students' view about asking challenging questions that promote critical thinking was weakly used by the instructors.

6) My instructor asks questions that provide me opportunities to respond with critical thinking skills to assess problems.

Table (59): Students' responses to question 6

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
6	5	8.2%	14	23%	14	23%	21	34.4%	7	11.5%

Table (59) shows that 8.2% of the students strongly disagree that their instructors ask questions that provide them opportunities to respond with critical thinking skills to assess problems, whereas 23% disagree. The study also revealed that 23% of the students neither agree nor disagree that their instructors ask questions that provide them opportunities to respond with critical thinking skills to assess problems. The results show that 34.4% of the students agree, and 11.5% strongly agree that their teachers ask questions that provide them opportunities to respond with critical thinking skills to assess problems.

Table (60): results of proportion test of question 6

Statement	Number ≤ 3	Number > 3	Test Significant
6	33	28	0.609

Table 60 above shows that test significance = 0.609, which is greater than 0.05. This means we reject the null hypothesis and conclude that students' view about asking questions that providing them opportunities to respond with critical thinking skills to assess problems were weakly used by their instructors.

7) My instructor asks me to employ critical thinking in writing assignments.

Table (61): Students' responses to question 7

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
7	2	3.3%	19	31.1%	11	18%	21	34.4%	8	13.1%

Table (61) shows that 3.3% of the students strongly disagree that their instructors ask them to employ critical thinking in writing assignments, whereas 31.1% disagree. Just 18% of the students neither agree nor disagree that their instructors ask them to employ critical thinking in writing assignments. Nearly,34.4% of the students agree that their instructors ask them to employ critical thinking in writing assignments.13.1% of the students strongly agree with the same idea.

Table (62): results of proportion test of question 7

Statement	Number ≤ 3	Number > 3	Test Significant
7	32	29	0.798

Table 62 illustrates that test significance = 0.798, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that the students' view about asking them to employ critical thinking in writing assignments were weakly used by the instructors.

8) My instructor raises some controversial questions to create discussion.

Table (63): Students' responses to question 8

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
8	9	14.8%	11	18%	13	21.3%	19	31.1%	9	14.8%

Table (63) shows that 14.8% of the students strongly disagree, and 18% of them disagree that their instructors raise some controversial questions to create discussion. Nearly 21.3% of the students neither agree nor disagree. The great majority 31.1% of the students agree, and 14.8% of them strongly agree that their instructors raise some controversial questions to create discussion.

Table (64): results of proportion test of question 8

Statement	Number ≤ 3	Number > 3	Test Significant
8	33	28	0.609

Table 64 shows that test significance = 0.609, which is greater than 0.05. This means we do not reject the null hypothesis, and conclude that students' view about raising some controversial questions to create discussion were infrequently used by the instructors.

9) My instructor asks me to think deeply on what I read.

Table (65): Students' responses to question 9

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
9	1	1.6%	1	1.6%	7	11.5%	38	62.3%	14	23%

Table (65) shows that 1.6% of the students strongly disagree as well as 1.6% of them disagree that their instructors ask them to think deeply in what they read. 11.5% of the students neither agree nor disagree. Whereas, 62.3% of the students agree and 23% strongly agree that their instructors ask them to think deeply in what they read.

Table (66): results of proportion test of question 9

Statement	Number ≤ 3	Number > 3	Test Significant
9	9	52	0.000

Table 66 shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that students' view about asking them to think deeply in what they read were highly used by instructors.

10) My instructor encourages me to work in groups to discuss my ideas and points of view.

Table (67): Students' responses to question 10

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
10	2	3.3%	1	1.6%	5	8.2%	34	55.7%	19	31.1%

Table (67) shows that 3.3% of the students strongly disagree, and 1.6% disagree that their instructors encourage them to work in groups to discuss their ideas and points of view. As table 67 illustrates, 8.2% of the students neither agree nor disagree with the notion that their instructors encourage them to work in groups to discuss their ideas and points of view. More to the point, 55.7% of the students agree and 31.1% strongly agree.

Table (68): results of proportion test of question 10

Statement	Number ≤ 3	Number > 3	Test Significant
10	8	53	0.000

Table 68 above shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that the students' view about encouraging them to work in groups to discuss their ideas and points of view was highly used by their instructors.

11) My instructor engages me in structured discussions.

Table (69): Students' responses to question 11

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
11	20	32.8%	15	24.6%	8	13.1%	13	21.3%	5	8.2%

Table (69) shows that 32.8% of the students strongly disagree, and 24.6% disagree that their instructors engage them in structured discussions. 13.1% of the students neither agree nor disagree. The study also revealed that 21.3% of the respondents agree that their instructors engage them in structured discussions. Just 8.2% of the students strongly agree with the as well.

Table (70): results of proportion test of question 11

Statement	Number ≤ 3	Number > 3	Test Significant
11	43	18	0.889

Table 70 shows that test significance = 0.889, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that students' view about engaging them in structured discussions were rarely used by their instructors.

12) My instructor pays more attention to intellectual tasks and activities.

Table (71): Students' responses to question 12

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
12	4	6.6%	3	4.9%	4	6.6%	26	42.6%	24	39.3%

Table (71) shows that 6.6% of the students strongly disagree that their instructors pay more attention to intellectual tasks and activities. 4.9% of the students disagree that their instructors pay more attention to intellectual tasks and activities. Only 6.6% of the students

neither agree nor disagree. 42.6% of the students agree that their instructors pay more attention to intellectual tasks and activities, and 39.3% strongly agree with the same idea.

Table (72): results of proportion test of question 12

Statement	Number ≤ 3	Number > 3	Test Significant
12	11	50	0.000

Table 72 shows that test significance = 0.000, which is less than 0.05. This means we reject the null hypothesis and conclude that students' view about paying more attention to intellectual tasks and activities were highly used by instructors.

13) My instructor applies debate in classroom to make me think.

Table (73): Students' responses to question 13

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
13	2	3.3%	12	19.7%	8	13.1%	36	59%	3	4.9%

Table (73) shows that 3.3% of the students strongly disagree that their instructors apply debate in classroom to make them think, while 19.7% disagree. Although 13.1% of the students neither agree nor disagree that their instructors apply debate in classroom to make them think. Still 59% of the students agree and 4.9% strongly agree that their instructors apply debate in classroom to make them think.

Table (74): results of proportion test of question 13

Statement	Number ≤ 3	Number > 3	Test Significant
13	22	39	0.040

Table 74 shows that test significance = 0.040, which is less than 0.05. This means we reject the null hypothesis and conclude that students' view about their instructors applying debate in classroom to make them think were highly used by the instructors.

14) My instructor asks me to define my perspective views about certain point.

Table (75): Students' responses to question 14

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
14	13	21.3%	17	27.9%	15	24.6%	10	16.4%	6	9.8%

Table (75) shows that 21.3% of the students strongly disagree that their instructors ask them to define their perspective views about certain points, whereas 27.9% of the students disagree. About 24.6% of the students neither agree nor disagree that their instructors ask them to define their perspective views about certain points. Just 16.4% of the students agree and 9.8% strongly agree with the idea.

Table (76): results of proportion test of question 14

Statement	Number ≤ 3	Number > 3	Test Significant
14	45	16	0.923

Table 76 above shows that test significance = 0.923, which is greater than 0.05. This means we do not reject the null hypothesis and conclude that students' view about asking them to define their perspective views about certain points were infrequently used by their instructors.

15) My instructor brings learning material that contains many tasks and activities.

Table (77): Students' responses to question 15

Statement	Strongly Disagree		Disagree		Neither Agree Nor Disagree		Agree		Strongly Agree	
	Count	%	Count	%	Count	%	Count	%	Count	%
15	9	14.8%	5	8.2%	9	14.8%	24	39.3%	14	23%

Table (77) shows that 14.8% of the students strongly disagree that their instructors bring learning material that contains many tasks and activities when only 8.2% disagree. 14.8% of the students neither agree nor disagree. Furthermore, 23% of the reported agree and

23% reported strongly agree that their instructors bring learning material that contains many tasks and activities.

Table (78): results of proportion test of question 15

Statement	Number ≤ 3	Number > 3	Test Significant
15	23	38	0.048

Table 78 shows that test significance = 0.048, which is less than 0.05. This means we reject the null hypothesis and conclude that the students' view about bringing learning material that contains many tasks and activities were highly used by their instructors.

Table (79): responses of the students' sample about the importance of integrating critical thinking that used by their instructors

Statement	Mean	Standard Deviation	Level of Use	Rank
1	3.39	1.100	Moderate	9
2	3.57	.974	High	6
3	3.21	1.156	Moderate	11
4	3.72	.897	High	4
5	3.59	1.101	High	5
6	3.18	1.162	Moderate	12
7	3.23	1.131	Moderate	10
8	3.13	1.297	Moderate	13
9	4.10	.870	High	1
10	2.48	1.361	Low	15
11	4.03	.752	High	2
12	4.03	1.125	High	3
13	3.43	.974	High	8
14	2.66	1.263	Moderate	14
15	3.48	1.337	High	7

Table 79 shows that all the means are between 2.48 and 4.10, which indicates that the level of the students' views about their instructors' integration of critical thinking are from low to high. One of the statement says "*My instructor encourages me to work in groups to*

discuss my ideas and points of views” ranked first with a mean of 4.10 and a standard deviation of 0.870, which indicates that the level of students’ view of this statement was high. The next statement says *“My instructors ask me to think deeply in what I read”* ranked second with a mean of 4.03 and a standard deviation of 1.125, which indicate that the level of the students’ view of this statement was high. On the other hand, another statement says *“My instructor engages me in structured discussions”* ranked last with a mean of 2.48 and a standard deviation of 1.361, which indicates that the level of students’ view of this statement was low.

Hypothesis Testing

What are students’ view about their instructors’ integration of critical thinking?

H0: The level of the students’ view about their instructors’ integration of critical thinking is average or less.

H1: The level of students’ view about their instructors’ integration of critical thinking is high or more.

The purpose of the hypothesis above is to give statistical evidence about level of students’ view about their instructors’ integration of critical thinking.

To test the hypothesis above, one sample t test has been used and the result is shown in the table below:

Table (80): the result of one sample t test

Variable	N	Hypnotized Mean	Mean	Standard Deviation	T test	Sig
students’ view	60	3	3.78	0.463	12.537	0.000

Since $\text{sig}=0.000 < 0.05$, we reject H0 and conclude that the level of students’ view about their instructors’ integration of critical thinking were high or more.

4.2 Qualitative analysis

Thematic analysis method was employed to analyse the data obtained from the semi-structured interviews. All the recorded data were fully transcribed then coded by the researcher. Coding is a process in which data are grouped into different categories (Dornyi, 2007). The comments gained from the interviewees throughout interviews were categorized and labelled. The following themes were emerged from analysing of the instructors' responses through the interview questions:

1. Defining critical thinking

The instructors provided different answers according to their background and teaching experience. For example, one instructor stated that *"CT is the ability of students /instructors to analyse, to think deeply of what the text/discourse is about and also the surface and deep meaning of the text."* While another instructor said, *"It's a very high intellectual process that requires practice. This can be achieved through integrating this skill in language teaching and in that comes the role of the instructor to construct class environment that supports CT skill."* Furthermore, one of the interviewees considered CT as *"A mental process and cognitive ability related to criticism, bring different opinions about ideas"*.

2. Critical thinking attitudes

Most of the instructors agreed on the idea of integration CT in teaching, but they were aware of some consequences that might lead to problems. For example, one teacher said, *"It's not difficult to integrate critical thinking but it depends on subject or skill"*, whereas another instructor claimed that CT should be integrated whenever a qualified teacher is available *"critical thinking should be integrated, but instructors need to be qualified and skilled to teach it successfully"*. Interestingly, one of the instructors went further clarifying how CT can be implemented in class *"In teaching, teachers integrate critical thinking into lessons by using words like examine, tell me why and elaborate, also*

with yes or no questions where they need to justify their choice of answers". In the same vein, another teacher explained how to effectively integrate CT in teaching by saying, *"Instead of just providing information, you should divide syllabuses into certain stages and ask the students questions before moving onto the next stage, to ensure understanding and as a progress test. Instructors should raise questions to ensure that the students are on the right track and this will evaluate both the instructor and the students' progress"*. In contrast, only one instructor disagreed with the notion of CT integration, because it does not suit the Libyan educational system and the Libyan culture. He said, *"It is difficult to integrate critical thinking as it isn't within the Libyan culture, as adults don't train the children to think in this way like other countries naturally do; there it is embedded within their culture"*.

3. Aspects of integrations

The instructors provided various answers according to their way of teaching and how CT can be integrated in teaching. Being more explicit and precise, two instructors argued that they integrate CT in testing. The first said, *"I usually integrate CT in testing. I don't just choose questions that depend on memorizing but I also ask the students to analyse and recall what they have taken in class and to add their own thoughts"*. Similarly, the other instructor commented that in the exam paper, there is always one question that is called the "devil's advocate", in which students have to give a different opinion and criticize the truth. According to the data obtained, some instructors integrate CT in giving instructions in the classroom. In this respect, one instructor said *"I integrate CT skill in my instruction by providing questions that require elaborating and explanations. By asking those questions, students will think deeply and in that time, they will activate their mental processes"*. Whereas, other instructors confirmed that they usually focus on materials that involve critical thinking, as one of them said *"I select learning materials that contain a lot*

of activities and tasks that challenge students' abilities." One more instructor mentioned that *"it's the teacher's role to select the material and simplify it in order to make lessons more enjoyable. Sometimes, some lessons do not include any tasks or activities, in that time, instructor intent to design a suitable activity or tasks related to that lesson itself"*.

4. Critical thinking activities

The instructors provided some useful activities that stimulate critical thinking such as questioning and group discussions. In this respect, one teacher said, *"They are many ways to promote critical thinking, and even if students don't want to speak, teachers have to elicit the information from them that will help them to look at issues from different angles"*. Another instructor said *"this can be done through role play, active learning, and cooperative learning"*.

5. Critical thinking barriers

The instructors might encounter some challenges when integrating CT such as classroom size and low level of language proficiency level. One instructor said, *"applying CT technique in classroom becomes out of the question, when we have classroom of about 50 students"*. While another instructor attributed that to students' inability to cope with such an activity by saying, *"students aren't costumed this kind of activities in class and to questions when comes to exam"*. More to the point, the lack of awareness about CT could be another challenge that teachers might face. In this regard, one of the participants argued, *"When a new technique or a way of teaching is introduced, some students start complaining and a lot of time is taken up convincing them about the benefits of this new technique"*. Moreover, varied proficiency levels in one large class, in addition to the shortage time provided represent other obstacles. Some instructors argued that home environment is not helpful for creating good thinkers. Therefore, this skill should be introduced to students from early the stages of learning. Analysing the data showed that

inability to plan activities that can be utilized in practising CT is another challenge for instructors. Also, some books do not always suit teaching CT because they depend on drilling most of the time. Another challenge is the education policies that force instructors to complete the syllabus on a deadline.

6. Overcoming challenges

The interviewees suggested a number of technical strategies that may help to overcome such challenges when applying CT in classrooms. One of those strategies is dividing the class into small groups as one of said, *“It would also be useful to make small groups in large classes. Regarding the material itself, the instructors can use the internet for worksheets to implement critical thinking within lessons; however, this is not always possible as so much focus is put on completing the syllabus”*. According to the analysis of data, students should be helped to be familiar with CT is a good strategy for implementing it later, since one of the participants commented *“practice the technique or way of teaching for the students to become familiar with it. Instructors have to clarify this skill to their students and that they employ /integrate in their teaching from the beginning”*. Moreover, the topic selection and practice of CT are effective strategies as well. In this respect, an interviewee said, *“More practice and a suitable selection of topics that allow listeners to participate and discuss”*.

7. Critical thinking assessments

The instructors mentioned some methods for assessments such as debate, self-evaluation, presentation and co-operative tasks during the class time. One of the instructor said *“If topics used are both cultural and controversial, this will enable students to think critically and students will collect evidence to convince the audience about the author’s opinion”*. Analysing the data reveals that teachers design exams that measure CT formality, as one of the participants confirmed *“I design exams that test CT formally,*

written composition section and oral exams are used in testing. It was ideal for students to explain and argue their ideas not just depending on what have been written in their syllabus". The process of data analysis indicated that testing is another strategy to teach CT. In this regard, one of the teachers said, "I assess my students in reading texts (comprehension exams) and listening exercises that test students' capacity to infer and analyse content. While another instructor stated "I assess them from feedback, e.g. give the students something to work on and when the teacher receives the work the teacher can say if the student does or doesn't understand the idea and if they have given a good critique. Doing a critique is good as it motivates the students to take part in discussions, communicate and accept ideas from others".

4.3 Summary

In conclusion, all the data gained were analysed both quantitatively and qualitatively. The qualitative findings indicated that EFL instructors at Zawia and Sabratha universities college of Arts integrate critical thinking in ELT; despite the challenges that they encounter during this process. In addition, the questionnaires results revealed that the level of awareness about the importance of integrating critical thinking in teaching was high or more and also the level of students' view about their instructors' integration of critical thinking was high or more.

CHAPTER FIVE

DISCUSSTION OF RESULTS

5.0 Introduction

The main purpose of this chapter is to provide a detailed discussion and interpretation of the findings obtained from the quantitative and qualitative data analysis. These findings are discussed in five themes: Attitudes towards critical thinking, integration of critical thinking, questions promoting critical thinking, critical thinking strategies and challenges of integrating critical thinking.

5.1 Attitudes Towards Critical Thinking

The research participants provided different definitions of critical thinking according to their background and teaching experience. These definitions were in line with the definitions in literature review (see p.6 -8). This means that, Libyan instructors in this study have a background about the concept of CT, and this indicates that they include this skill in their teaching. The findings obtained confirmed a complete consensus among instructors on the importance of integrating critical thinking in language teaching. According to the quantitative and qualitative findings, the inclusion of CT in teaching curriculum contributes to the learning of a target language not only as a vehicle of communication, but also as a tool for gaining knowledge and exploring new ways of experiencing the world. Engaging in interactive activities while practising both communicative skills and critical thinking, offers students a better opportunity to improve their self-consciousness, their understanding of their abilities and their limits, and thus paving the road to self-improvement as learners, as future professional, and as individuals

(Elena et al., 2013). Therefore, integration of CT into FL teaching seems to be valuable key to improve students' linguistic abilities.

5.2 Integration of Critical Thinking

The quantitative and qualitative findings obtained revealed that the majority of the instructors implement critical thinking in different aspects of their teaching. Instructors integrate critical thinking in methods of instruction, learning material and assessment strategies. This result agrees with Salah's findings (2019). It can be said that the instructors sufficiently adopt behaviour that focuses on the use of cognitive language, like compare, analyse, classify, explain and synthesize inside classroom. Instructors also select the learning material that contains many tasks and activities and assess their students through certain strategies and tests.

Analysing the data obtained showed that the instructors rarely required their students to employ CT in writing assignments. In their responses to item 9, "*I ask students to employ critical thinking in their writing assignments*", 41.8% of the instructors ask their students to employ critical thinking in their writing assignments, and 12.7% of them reported strongly agree on the same idea. Whereas in students' questionnaire, item 7 "*My instructor asks me to employ critical thinking in writing assignments*", 34.4% of the students reported agree that their instructors ask them to employ critical thinking in writing assignments, and 13.1% of the students reported strongly agree with the same idea. These results indicate that the possibility of integrating this kind of thinking in teaching writing skill is rarely used. In the writing process, learners develop their critical thinking skills through being involved in generating ideas, using problem-solving strategies and through employing a range of cognitive and linguistic skills. These skills may lead learners to identify a purpose, produce and shape ideas and refine expressions (White, 1995). Any

successful writing class should end with the development of critical thinking which is strengthened by finding the learner's interest or expertise, and is geared from collaborative writing activities (Indah, 2009 & Indah, 2010). Argumentative writing is a useful task for promoting critical thinking and that can be used to measure not only the writing performance but also critical thinking skills. Students' writing performance is mostly indicated by the quality of the writing product, which focuses on its clarity, originality and correctness (Rahim et al., 2008). Critical thinking skills can be assessed on the elements which are reflected from the main aspects, namely argument, evidence, and recognition of opposition, refutation, conclusion, references, and fallacies (Stapleton, 2001). Therefore, instructors should give their students an issue or a problem to write about not just topic. Writing about an issue or a problem stimulates critical thinking, whereas writing about a topic often keep the student at the level of a reporter of information.

The findings gained revealed that instructors encourage their students to evaluate and analyse what they have read. Looking closely at item 11, "I encourage students to think deeply about what they read" revealed that 38.2% of the instructors reported agree and 41.8% of them reported strongly agree with encouraging students to think deeply about what they read. In students' questionnaire, item 9 "*My instructors ask me to think deeply of what I read*", the results revealed that 62.3% of the students reported agree and 23% of them reported strongly agree that their instructors ask them to think deeply of what they read. Constant practice on those activities help students to learn how to elaborate on their opinions and improve their imagination, as well as be able to defend their choices. Moreover, those activities require students to show their active cognitive skills in interpreting, analysing, and explaining. Additionally, the regular practice of those activities help students to learn how to solve problems (Wong, 2016).

In regard to the learning material, the responses to item 15, in students' questionnaire revealed that 23% of the students reported agree and 23% reported strongly agree that their instructors bring learning material that contains many tasks and activities. In this respect, Hughes (2014) urged language instructors to integrate this kind of thinking in their teaching and emphasized the need for developing language materials that offer the opportunity for engaging students in tasks and activities that involve deep thinking and reflection. Moreover, Salah (2019) mentioned that Libyan EFL university instructors enjoy a considerable degree of autonomy as they are always the decision-makers about managing the teaching /learning process. This offers them a good chance to select learning materials that are appropriate for integrating critical thinking.

Assessment is another aspect of teaching where CT can be integrated. Critical thinking assessment can be classified into various ways depending on the learning outcomes of a course and what strategies are used in teaching. According to Ennis (1993), CT assessment should have equal emphasis with the strategies implemented. The instructors mentioned some methods for assessments such as debate, self-evaluation, presentation and cooperative tasks in classroom. Moreover, the instructors also added that the exams that they usually do contain CT-skill. Subjective tools such as essay questions require students to apply their knowledge to new situations and are better indicators of understanding than objective true/false or standardized multiple-choice assessments. However, instructors can create multiple-choice questions that require critical thinking. For example, students can be asked to identify the example that best applies a specific concept that requires more critical thinking and analysis. Hence, CT in EFL is assessed subjectively and directly in classroom. This finding disagrees with Marin and Pave (2017), because of the multidimensional nature of critical thinking, many existing assessments include multiple procedures. For example, using alternative methods, such as peer

interaction in a lecture, role-playing, one-minute essays and thinking in advance technique are all types of assessments that can be done to measure CT (Cotter & Tally, 2009). Thus, instead of applying standardized multiple-choice tests with one correct answer, EFL students should be exposed to discussion activities, tasks, and tests that evaluate their performance based on individual and cooperative criteria, with open questions that require students to put into practice their quality of thought, argumentation, analysis, synthesis, explanation, evaluation and new ideas.

5.3 Questions for Promoting Critical Thinking

Instructors should focus on asking more questions at the analysis, synthesis and evaluation levels in order to create opportunities for students to practice critical thinking skills. Regarding the first item “I ask thoughtful, open-ended questions”, the findings obtained revealed that 49.1% of the instructors reported agree and 21.8% reported strongly agree with the idea of asking open-ended questions. Also, in the students` questionnaire, item 1 “*My instructor asks me thoughtful, open-ended questions*”, the results revealed the 45.9% of the students reported agree and 11.5% of them reported strongly agree that their instructors ask open-ended questions. The result indicates that instructors` high frequency in using open-ended questions in their teaching can be attributed to their awareness of the importance of the critical thinking skill. This finding disagrees with Al-Kindi and AL-Mekhlafi`s (2017) findings. Methodology was different and this contributes to make disagreements. Asking questions to students is a significant strategy to promote thinking, engagement in classroom. Particularly, open- ended questions that allow a variety of possible answers and encourage students to think at a deeper level. Some college instructors spend little class time in posing questions to students such as memory-level questions that ask for factual recall, the least likely to promote student involvement. To

confirm the role of questions in promoting learners' critical thinking, Cotton (2001:1) asserted that "in classroom settings; teacher questions are defined as instructional cues or stimuli that convey to students the content elements to be learned and directions for what are to do and how they are to do it". Therefore, it is important to include open-ended questions into lectures as a trigger to pose them at certain points in class, for the whole class or small groups. discussion.

The form of open-ended questions can be in "why-how". Regarding this, the responses obtained to item (2) "*I ask 'why' and 'how' questions to encourage students to think*", showed that 36.4% of the instructors reported agree and 49.1% reported strongly agree. These results go in harmony with the students' responses to item (2) "My instructors use 'how' and 'why' questions to encourage me to think". The findings revealed that 54.1% of the students reported agree and 11.5% of the them strongly reported agree with the same idea. This result implies the instructors' consideration of the cognitive levels of questions and the importance of asking why and how questions to promote CT. Instructors intend to ask how and why questions in their lectures to impelling students to demonstrate or illustrate a certain point. This in turn, leads them to think deeply and reflect. In this regard, Paul and Elder (2006) stated that instructors, students, or indeed anyone interested in probing thinking at a deep level can and should construct Socratic questions, as they lead to deep thinking. Thus, asking open-ended questions lead the brain go unlimited thinking.

The analysed data also revealed that why and how questions are very powerful in leading discussions and activating students' brains to think independently and promotes students' willingness to analyse and comprehend any given text. In item 3, "*I ask questions that require students to analyse texts*", the researcher drew the instructors' focus to ask more detailed analytical questions in the class. The results revealed that 41.8% of the

instructors reported agree and more precisely 25.5% of them reported strongly agree with the idea of asking questions that require students to analyse texts. Also, in students' questionnaire, in item 3 "*My instructor asks me to analyse information*", the results revealed that 42.6% of the students reported agree that their teachers ask them to analyse information and 8.2% reported strongly agree with the same idea as well. This result showed that instructors ask students to go beyond what is presented explicitly in the text and to think about them in a way that is different. Applying high-level cognitive processes such as analysis of ideas, inference, prediction and evaluation develop students' critical thinking skills. This finding falls in disagreement with the finding of Al-Kindi and AL-Mekhlafi (2017). It is important that the instructor focuses the instruction on the process of teaching critical thinking. In this respect, Snyder (2008: 92) proved that lecture and rote memorization do not contribute to critical thinking. However, instructional strategies that employ students' "higher-order thinking" skills have proved to be helpful in improving critical thinking skills. Nevertheless, critical thinking is not an innate ability, and its improvement involves training. In this regard, the goal of instruction is to help learners acquire both the knowledge and the process for learning how to learn, as Jensen (2002, 95) stated, the instructors' role has shifted "from providing literary knowledge to coaching student's individual reading processes".

Moving from a text analysis technique into a text elaboration to promote thinking, the instructors' responses to item 4, "*I ask students to elaborate their responses*" revealed that 52.7% of the instructors reported agree and 23.6% reported strongly agree. While in students' questionnaire, item 4, "*My instructor asks me to elaborate my response*", the results revealed that 52.5% of the students reported agree and 16.4% of them reported strongly agree. This indicates that instructors frequently require their students to clarify and justify their responses. This result is also against Al-Kindi and AL-Mekhlafi's (2017)

findings. Elaboration of responses is another technique related to higher thinking procedures in which learners move from giving a straight answer into more detailed explanations in order to clarify and elaborate their responses. Moreover, in response to any asked question, the learners link their schemata or background knowledge to what they already know. In this regard, Clark and Kellough (2005) suggested that instructors need to ask well-worded questions before calling on a student for a response and avoid bombarding students with too much teacher talk. Also, after asking a question, the instructor should provide students with adequate time to think. Therefore, instructors should be trained on how to actively involve as many students as possible in the questioning-answering discussion session.

Asking challenging questions such as argumentative ones also promotes thinking and leads to classroom discussion. In their responses to item 5, "*I ask challenging questions that promote critical thinking*", 47.3% of the instructors reported agree whereas 27.3% reported strongly agree with the idea. Looking at item 5 "My instructor asks challenging questions that promote critical thinking" in students' questionnaire reveals that 39.3% reported agree and 21.3% reported strongly agree. These results indicate that the instructors frequently use thought-provoking questions. Thought-provoking questions in this context refer to questions that require the students to go beyond the facts and to think about them in a way that is different from what is presented explicitly in class or in the text. Thought-provoking questions include high level cognitive processes such as analysis of ideas, comparison and contrast, inference, prediction and evaluation. This finding disagrees with Al-Kindi and AL-Mekhlafi's (2017) findings. Instructors ask challenging questions to help students move from simple responses, to engage in more developed complex thinking. Furthermore, this technique helps them apply what they understand, to make the next learning sessions more easy to follow. In addition, the

students will be able to think more actively in lessons and learn from the answers given by other students. Thus, a sufficient use of high order cognitive questions by the instructors is a must for developing students' critical thinking.

After having the classroom promoted to engage in a challenge, the instructor moves into a closing discussion and ends the challenge. In this case, the instructor needs to ask another question to draw final conclusions. Looking carefully at items 6, "*I encourage students to draw general conclusions of what has been discussed*", the results revealed that 34.5% of the instructors reported agree and 40% reported strongly agree. This implies that instructors frequently require their students to provide conclusions of what have been introduced in their discussion. This finding falls in disagreement with Al-Kindi and AL-Mekhlafi's (2017) findings. The instructors use this task as a type of assessment in classroom, to identify students' strengths and weaknesses, assist educators in planning subsequent instruction, assist students in guiding their own learning by evaluating and revising their own work, and foster students' sense of autonomy and responsibility for their own learning (Brown et al., 2014). Thus, instructors ask such questions to assess student knowledge of a particular concept or a particular aspect of practice and this in turn, helps instructors measure students' progress toward objectives for which they and their students will be held accountable. Furthermore, this technique provides a basis for deciding which students need extra help and what bits of the instruction need to be taught again.

Regarding item 7, "*I ask questions that provide opportunities to solve problems*", the findings obtained showed that 56.4% of the instructors stated that they ask questions that provide opportunities for students to solve problems, and 14.5% reported strongly agree with the idea as well. While, in students' questionnaire, item 6 "My instructor asks questions that provide me opportunities to solve problems", the findings revealed that

34.4% reported agree and 11.5% reported strongly agree. These results presented that instructors reinforce students to think creatively and critically in looking for a best solution to a complex and ill-structured problem. It is crucial to give students opportunities to discuss what they think about, believe in, and their opinions in class, because this strategy increases their self-confidence and stops them of being scared or hesitated to participated in classroom activities. Even when the typical difficulties are overcome, critical thinking still requires more than simple engagement. It needs students' personal discovery of information. Heuristic teaching methods (problem-solved techniques) teach learners how to define, understand, or solve problems by themselves through experimenting, evaluating possible responses, or by trial and error, and this has been confirmed by a study conducted by Gurses et al., (2007). Thus, through PBL activities students construct higher order critical thinking.

Problem-solving techniques that are used to promote critical thinking depend on learners' previous experience to act in new ones. In regard to item 8, "*I ask questions that require students to link their previous knowledge to new situations*", 34.5% of the instructors reported agree and 43.6% of them reported strongly agree. This indicates that the students are frequently asked by their instructors to apply prior knowledge in new situations (create something new). This finding disagrees with Al-Kindi and AL-Mekhlafi's (2017) findings in they stated that the instructors rarely required their students to apply past knowledge to new situations. Well-planned and qualified questioning techniques help students in making connections between the readings under study and their past experiences. Higher-order questions require students to use information previously learned to create or support an answer with logically reasoned evidence and they are useful in the teaching-learning process. Students who are able to apply meta-cognitive skills to the

learning process can increase their level of comprehension, as they are better prepared to make connections to prior experiences (Gbènakpon, 2017).

To engage students in a hot discussion, an argument or a debate, the instructors need to carefully select controversial topics for discussion and to offer students the opportunity to think deeply. In respect to item 10, “*I raise controversial issues and topics to promote critical thinking in-class discussion*”, 38.2% of the instructors reported agree, and 34.5% of them reported strongly agree. While in students` questionnaire, item 8 “*My instructor raises some controversial questions to create discussion*”, the results revealed that 31.1% of the students reported agree and 14.8% of them reported strongly agree. These results lead to the conclusion that instructors tend to post topics and issues that require a cognitive conflict. Raising controversial issues in a classroom creates an environment of developmental tension that maintains reflection, rational judgment, and also necessitates considering various viewpoints (Browne & Freeman, 2000). When students have an opportunity to debate current issues in a classroom setting, they tend to have a greater interest in civic life, which in turn improves critical thinking and communication skills (Close-Up Foundation, 2015).

5.4 Teaching Strategies

Ideal instructors apply strategies and activities in classrooms to enhance, promote and improve critical thinking. Discussions, questioning, intellectual tasks and role-play are effective strategies for class participation and activation. The findings revealed that the instructors provided some useful activities that promote critical thinking such as questioning and discussions. Researchers in critical thinking typically agree on the specific activities which include analysing arguments, making inferences, using inductive or deductive reasoning, judging or evaluating, and making decisions or solving problems

(Willingham, 2008; Eniss, 1993 & Paul, 1995). The results obtained indicated that the instructors use most of the teaching strategies discussed in chapter two such as debate, role play, etc. by integrating student-centred approaches. It seems that instructors of English in Libyan universities misunderstand activities of CT. Thus, Instructors should be able to draw a line between areas of integration CT strategies and activities of CT.

The instructors' responses to item 12, "*I encourage students to work in groups to discuss their ideas and points of view*" revealed that 41.8% of them reported agree and 36.4% reported strongly agree with the same idea. On the other hand, in students' questionnaire, item 10 "*My instructor encourages me to work in groups to discuss my ideas and point of views*", 55.7 % of the students reported agree and 31.1% reported strongly agree. This indicates that the instructors' behaviour in class tend to focus on interaction and cooperation to solve problems or discuss ideas. This finding is again against Al-Kindi and AL-Mekhlafi's (2017) findings. Instructors' behaviour should encourage students to cooperate with each other, for example, by using phrases like 'help each other', 'work together', etc. In literature, many studies investigated the possibility of making classroom interaction more dialogic, for instance Gibbons (2002) and Nystrand (1997). Learning is likely to be more effective when students are actively involved in a dialogue in which they are co-constructors of meaning. Discovering something new needs learners to actively participate as they construct and progressively develop their understanding through the exploration of ideas (Bransford et al., 2000). In addition, this process is posing thought-provoking questions and inviting students to "make predictions, summarize, link texts with one another and with background knowledge, generate and answer text-related questions, clarify understandings, master relevant evidence to support an interpretation, and integrate reading, writing and discussion" (Applebee et al., 2003:69). Therefore, group discussion is beneficial for improving critical thinking as students

together can share ideas, exchange opinions, discuss issues and solve problems or create situations where critical thinking is needed.

However, group discussion is sometimes inappropriate when there is no instructor control over the class; so it is significant that the instructor leads the discussion. Running a structured discussion can be workable when class size is big. The responses obtained to item 13, "*I engage students in structured discussion*" revealed that 34.5% of the instructors reported agree and 41.8% of them reported strongly agree. In students' questionnaire; item 11 "*My instructor engages me in structured discussions*", the findings gained revealed that 21.3% of the students reported agree and Just 8.2% of them reported strongly agree. These results imply that the instructors hold classroom discussions with their students and create an environment in which thinking skills are encouraged. This result disagrees with Sekoubaou`s (2017) results. Context was different and this contributed to construct disagreements. Sandra and Howard's (2007: 90) argument in which they said, "although learners may do activities individually in pencil-and-paper form, it is important to follow up each activity with class discussion to foster vocabulary development and to promote better transfer of thinking skills to content learning". Classroom discussion is a sustained exchange between and among instructors and their students with the purpose of developing students' abilities or skills and/or expanding students' understanding both shared and individual of a specific concept or instructional goal. Classroom discussions are characterized by high qualities and high quantities of student talk that is instructors must ensure that discussions are built upon and revolve around both students' contributions and the content at hand and to minimize their talk (Witherspoon et al., 2016). In discussions, the instructors` role is to ask students, activate and press students' ideas, structure, steer the conversation toward the learning goals, enable students to respond to one another, moderate and facilitate students' interactions,

make sure that the content under discussion is represented accurately and bring the discussion to a meaningful end.

Looking closely at item 14, "*I engage students in intellectual tasks and activities related to critical thinking*" reveals that 32.7% of instructors reported agree and 32.7% reported strongly agree. In addition to the students' questionnaire, item 12 "*My instructor pays more attention to intellectual tasks and activities*", 42.6 % of the students reported agree and 39.3% of them reported strongly agree with the same idea. This finding revealed the instructors' high enthusiasm and readiness for challenges and complex tasks that require higher order thinking skills. Thus, instructors tend to adopt the behaviour that enhances their students' critical thinking skills inside the classroom. Creating a classroom environment in which students are encouraged to make meaningful connections, by thinking critically and reflecting upon their experiences helps in more effective engagement in classrooms (Fredricks et al., 2004). In this regard, students' engagement in classroom activities and assessments is considered to be "a highly desirable goal with positive outcomes for all parties" (Bryson & Hand, 2007: 354). Thus, the ideal method for fostering this kind of thinking among students is through engaging them in tasks and activities that involve analysis, synthesis, reflection and solving problems.

Debating is also fundamental in rising critical thinking. Regarding this, an interesting finding obtained from the instructors' questionnaire, item 15, "*I apply debate in classroom to promote critical thinking*", as 40% of the instructors reported agree, whereas 27.3% of them reported strongly agree with the idea. Moving to the students' questionnaire, item 13, "*My instructor applies debate in classroom to make me think*", 59% of the students reported agree and only 4.9% reported strongly agree. This finding indicates that instructors make sufficient use of strategies that enhance their students' critical thinking

inside classroom. Instructors apply this strategy to help learners to develop critical thinking by being engaged in arguments, getting involved in research, collecting information, conducting analysis, challenging assumptions and evaluating arguments. Debates can be utilized as a method to teach students critical thinking skills. Tumposky (2004) found three connections between critical thinking and debating as a tool for learning: peer interactions, analysis (Blooms Taxonomy), and increasing meta-cognitive skills. Higher-order functions are developed as a result of peer interactions. Meaningful learning can take place when students utilize Blooms Taxonomy during debates. Debating is an activity that helps to increase the level of meta-cognition. Setting students up in cooperative activities prior to debates increases the peer interaction. However, debates should not be strictly regulated to achieve the same results. Previous studies also confirmed that in-class debate can cultivate promote, and develop critical thinking skills (Omelicheva, 2007; Kennedy, 2007). Thus, debate functions to develop skills in critical thinking, analysing, synthesizing, evaluate statements and arguments.

Role-play is also considered as an active and effective classroom activity to enhance students' level of engagement and participation. Responding to item 16, "*I ask students to define their perspective views about certain issues through 'role play' activities*" 36.4% of the instructors reported agree and 14.5% of them reported strongly agree, whereas in students' questionnaire, tem 14, "*My instructors asks me to define my perspective views about certain point through 'role play' activities*", only 16.4% of the students reported agree and 9.8% reported strongly agree with the idea. The interpretation of this result is that the instructors rarely engage students cognitively and effectively to work together to resolve any issue that might be raised in class. This task requires students' motivation and active participation in class. In order to instil critical thinking skills among

students, teachers should provide an educative environment where students can cultivate their critical thinking skills and critical thinking attitude (Garrison et al., 2000).

5.5 Challenges of Integrating Critical Thinking

Although most of the instructors reported different experiences about their implementation of this skill in their teaching, they all agree about the existence of serious challenges through the implementation of this skill in their teaching. Previous research also confirmed this result (Qing, 2013; Ali akbaria & Sadeghdaghighib, 2013; Marin & Pava ,2017; Al-Kindi & AL-Mekhlaf, 2017; Sekoubaou,2017; Salah, 2019).

The quantitative and qualitative findings highlighted a number of challenges that might encounter Libyan EFL instructors in integrating CT in their teaching. These challenges include class size, time pressure, testing policy, curriculum deadline achievements, lack of instructor training, students' low level of language proficiency as well as their unfamiliarity with CT. The responses to item 17 *"lecture time is not sufficient for integrating critical thinking activities"*, 27.3% of the instructors reported agree and 20% of them reported strongly agree. The instructors reported insufficiency of time as a significant barrier to implement critical thinking. During the process of critical thinking instruction, students engage in a variety of activities and practise different skills. Moreover, it is essential for instructors to follow-up individual students to ensure the development of their skills, and this in turn takes time. Instructors often have a great amount of contents to cover within a time limit before deadline of exams. Thus, it can be concluded that examinations have significant impact on the instructors' ways of their teaching. This result support Marin and Pava's (2017) and Salah's (2019) findings. Therefore, instructors should estimate / manage the time and organize their thoughts by writing their lesson plan in advance to include this skill in their teaching.

Class size is another factor that may affect the process of integrating CT in language teaching. Small class size allows implementing activities that promote critical thinking such as problem solving and task-based learning. However, large class size may not provide appropriate conditions for integrating CT. Regarding item 18 “*large classroom size does not help implementing critical thinking activities*”, the results revealed that 14.5% of the instructors reported agree and 32.7% of them reported strongly agree. Due to large number of students, instructors exert much effort to get the attention of every individual student in class, in addition to a greater effort devoted to class-activities. The same conclusion was reached by Marin and Pave (2017). Lazear (2001) outlined a theoretical model where class size itself is important due to the role that it plays in setting the classroom environment. He stated that large classes may allow students to be more disruptive, allow them to “hide” from participation, engagement, or even attendance, while small classes may more easily lend themselves to pedagogical activities that develop learning, such as hands on activities and student-classroom interaction. Large classes increase the burden of work. The instructors may, therefore, be over-saddled with the task of monitoring classroom discussions and giving effective feedback to everyone. It can be concluded that a good classroom size facilitates the teaching of critical thinking, as it helps the instructors to provide effective oral and written sessions while teaching critical thinking. Thus, the class size plays a great role in the degree of success of critical thinking instruction.

In item 19, “*Assessment policy does not focus on developing students’ critical thinking*”, the findings revealed that 27.3% of the instructors reported agree and also 27.3% of them reported strongly agree. The instructors referred to the traditional approaches of assessment as another barrier. The same conclusion was reached by Salah (2019) and Sekoubaou (2017). The pressure to cover content of material in order to

prepare students for the achievements exams may thwart instructors to design critical thinking activities. Especially, Examination-based teaching puts these instructors under the pressure of the need for covering a pre-determined set of topics in a given number of lectures. Instructors feel a pressure to prepare learners to demonstrate sufficient academic skills, which can help students to pass their exams successfully. By so doing, instructors are tempted to leave behind the development of higher order thinking. When the emphasis is on content rather than student learning, short cuts such as lectures and objective tests become the norm. Lecturing is faster and easier than integrating project-based learning opportunities. Objective tests are faster to take (and grade) than subjective assessments (Snyder, 2008). However, previous research indicates that lecturing is not the best method of instruction, and objective tests are not the best method of assessment (Brodie & Irving, 2007).

In their responses to item 20, “*integrating critical thinking is not a common practice for my colleagues*”, 18.2% of the instructors reported agree and 41.8% of them reported strongly agree. This can be attributed to conservative ideology. Seasoned instructors can be resistant to the idea of changing their teaching style. They find it hard to get rid of their stereotypical teaching techniques, failing to recognize that language is dynamic, and teaching it requires instructors to constantly update their own knowledge to be adapted with the current realities. Moreover, those teachers do not have the adequate academic background necessary to infuse critical thinking activities in their lessons. Especially, some textbooks provide chapter-based critical thinking discussion questions, but instructional materials often lack additional critical thinking resources. This result agrees with Sekoubaou’s (2017) findings. Thus, it can be said that it is difficult to cultivate critical-minded individuals and achieve the transformation projected within the learning programs unless instructors’ behaviours support critical thinking in classrooms.

Looking closely at the instructors' responses to item 21, "*there is no staff training for integrating critical thinking*", reveals that 18.2% of them reported agree and 38.2% reported strongly agree. University instructors pursue additional content-based instruction during post-graduate study, but they often do not have formal methodological training, only less skill-based instruction. Similar challenges were identified among Marin & Pava's (2017) research sample which also included university instructors. The most crucial factor for successful CT practice is instructors' training. It has been well documented that critical thinking instruction is influenced by the amount of training provided to the instructors. The benefits of training were clearly reported by Sodoma and Else (2009) who recognized that training opportunities help the instructors feel more comfortable with the challenges of the new experiences. It is necessary to develop the Libyan EFL university instructors' understanding and skills of critical thinking integration. Therefore, Libyan universities need to offer their staff members training courses and workshops that focus on methods and strategies for integrating critical thinking in language teaching. Furthermore, more attention should be paid to promoting the instructors' positive attitudes towards this notion.

In regard to 22, "*it is not easy to engage students in critical thinking activities*", 30.9% of the instructors reported agree and 25.5% reported strongly agree. This finding has been confirmed by the results of a similar study conducted by Aliakbaria and Sadeghdaghighib (2013). Critical thinking requires more than just simple student engagement, it requires students to be actively engaged "in the process of conceptualizing, applying, analysing, synthesizing, evaluating, and communicating information (Kim et al., 2012: 225). This means that, critical thinking is a learned skill that requires both training and practice. Instruction using investigative techniques rather than those requiring only rote memorization promotes these higher-order thinking skills (Snyder & Snyder, 2008). The majority of classroom activities should therefore be performed in a way that engage

students to work collaboratively, a method which establishes a stress-free atmosphere in the classroom and makes the learning process more enjoyable and also more thought-provoking. Such activities will meet students' social need for a sense of attachment to the whole group, and thus will boost their motivation, help them develop a positive attitude towards critical thinking and encourage them to increase their involvement in critical thinking activities in future. Thus, instructors should manage the classroom in a way that helps them teach critical thinking more effectively. More importantly, the instructors need to be trained how to develop lessons that incorporate critical thinking strategies, so that they can pay more attention to the intellectual development of learners rather than preparing them only for standardised tests.

The instructors suggested some technical strategies that might help in having an ideal integration of the critical thinking strategies in class. They suggested dividing the class into small groups. This can be helpful to engage learners in thinking skills. Furthermore, instructors can use the internet for worksheets to implement critical thinking within lessons when materials are inappropriate or mandatory. These suggestions agree with Sekoubaou's (2017) research findings. Another suggestion was providing training courses that focus on integrating CT in teaching to the instructors, in addition to familiarizing students with this technique in classrooms from the early stages of their learning.

CHAPTER SIX

CONCLUSION

6.0 Introduction

This chapter presents the conclusion that has been drawn from the study along with implications, recommendations, limitations and suggestions for future research.

6.1 Summary of the Findings Obtained

This study was conducted at Zawia and Sabratalah University on a group of instructors and students. The purposes of the study were to identify the aspects of ELT in which the instructors integrate critical thinking, outline the challenges of integrating critical thinking in ELT in Libyan universities and identify students' views about their instructors integration of critical thinking. The researcher used quantitative and qualitative methods for data collection and analysis. These methods included two questionnaires for the instructors and students and semi-structured interviews for six instructors. In this study, critical thinking is confirmed as an important skill which leads to problem solving, judgment, decision-making, and creative capabilities. Therefore, its integration in ELT is a necessity. Teaching critical thinking seems to be a great challenge, but it deserves commitment of the highest degree. English language classrooms represent an appropriate context for implementing critical thinking and therefore EFL instructors can integrate critical thinking in different aspects of teaching and learning including methods of instructions, strategies of assessment and learning materials. However, there are crucial factors which effect the implementation of critical thinking in English language teaching and learning in FL settings including Libya.

The study revealed that there is an integration of critical thinking in teaching and learning of EFL at Libyan universities, but there are also some challenges usually face

instructors while implementing critical thinking. According to the findings, critical thinking is difficult to be included in the current Libyan educational settings because of some reasons such as classroom size which includes over thirty students, lack of qualified instructors and instructor training courses, lack of facilities, and insufficient knowledge or background about the importance critical thinking in language learning from students' side. It is hoped that this work inspires other researchers to focus on this issues and urge the decision makers in Libya to take further actions that shares the integration of critical thinking not only at the university level but also at schools.

6.2 Classroom Implications and Recommendations

The findings of this study have valuable implications for promoting EFL learners' critical thinking. Reading this dissertation therefore, enhances EFL instructors' awareness about the importance of developing this kind of thinking among their students. The findings confirmed that integrating CT is not limited to a few strategies and activities, but that many other strategies can be used to improve students' critical thinking. Furthermore, this study offers professors an in-depth understanding of how instructors can be well prepared and what appropriate techniques that help in overcoming any challenges in incorporating CT. The research findings help instructors to choose their approaches to instruction, learning material and assessment strategies for incorporating critical thinking in good conditions. This study offers good insights to decision makers and course designers to understand their role in developing and identifying the kind of support that need to be offered to universities and instructors. Consequently, this research provides the following recommendations to both instructors and assessment policy:

- Critical thinking should be promoted as a part of learning, and it should be promoted in higher education and emphasized at primary and secondary stage.

- The ministry of education in Libya need to considers introducing and developing Libyan educational organizations to improve critical thinking at the tertiary education level and to promote critical thinking through workshops and conferences.
- The instructors need to structure their classrooms by arranging classrooms' seating for individual, pair and group work.
- The instructors should encourage whole-group interaction by managing resources of time, energy, space, and materials to facilitate critical thinking in their classrooms.
- EFL instructors need to be trained to develop lessons that incorporate critical thinking strategies, so that they can attach serious attention to the intellectual development of learners rather than preparing them only for standardized tests.
- Instructors can focus on providing students with appropriate wait time to help them have the chance to think before they respond to any task in the class.

6.3 Limitations of the Study

Some limitations had been encountered during the completion of this study. These limitations can be summarized as follows: (1) Adapting a qualitative approach of investigation with a small sample of participants represents an obvious limitation for this study which does not allow generalizing its findings; (2) Due to time limits, the survey was administered in the middle of January 2020. Thus, the instructors were overloaded by work in teaching which could affect their responses; (3) Participation may have been limited by an unwillingness to complete the study due to its length and time needed for completion; (4) Correspondingly, the findings of this study are limited by the willingness of the respondents to complete the questionnaire and the respondents who are likely use critical thinking strategies in the courses they teach. That is why the interviews were conducted after the questionnaire. This strategy was adopted as a remedy for any failure in the questionnaire completion.

6.4 Suggestions for Future Research

On the basis of the previously mentioned findings, and taking into account the limitations of this study, it is possible to suggest an area for future research. Firstly, it is hoped that researchers conduct comparative studies to investigate the differences or similarities among instructors at private and public language institutes and among Libyan and non-Libyan instructors. It might be interesting to find out if Libyan instructors who teach at public institutes have the same concerns as those who teach at private institutes. Another possible direction for future investigation could involve comparing the effects of the critical thinking pedagogy on high achieving and low achieving learners to find out if the pedagogy benefits one group more than the other. Insights and feedback from decision makers and curriculum developers regarding critical thinking teaching strategies can be explored to obtain additional information on promoting critical thinking within tertiary education in Libya. Assessing pedagogical content knowledge to compare lecturers' content knowledge with knowledge of critical thinking strategies will inform higher education strategic planning. A full qualitative research design could explore deeper implications of critical thinking in education from a variety of educational stakeholders' perspectives.

In conclusion, successful integration of critical thinking can be realized if higher education institutions are committed to conducting on-going research that involves decision makers, curriculum developers, educators, students, and others who can provide feedback and support. By involving these groups, critical thinking can be integrated in any curriculum within Libyan higher education more effectively and consistently.

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Appendix II: Consent Form

Title of Thesis: Exploring Libyan EFL university instructors` integration of critical thinking in ELT

This study attempts to identify the aspects of integrating critical thinking with teaching English according to Libyan EFL university instructors and also investigates challenges that encounter by those instructors in the teaching.

I have read the statements above about the research project, and the researcher has explained the research project to me clearly. I have understood that all the data will be kept confidential and my identity will be anonymous in the research report.

I have understood that my participation is voluntary and that I am free to withdraw at any time, without giving reasons.

I agree to take part in the this study.

Name of participant:-----

Signed:-----

Date:-----

Appendix III: Instructors' Questionnaire

Dear Instructor,

I am an MA student conducting research about exploring Libyan EFL university instructors' integration of critical thinking in English language Teaching (ELT) and identifying the challenges they encounter in this process. You are kindly invited to complete this anonymous questionnaire. Your valuable data will be kept confidential and will be used for the purpose of this research only.

Thank you very much for your kind cooperation.

Please put a (√) in the box which matches your practice

No	Statements	Strongly disagree	Disagree	Neither agree Nor disagree	Agree	Strongly agree
1.	I ask thoughtful, open-ended questions.					
2.	I ask `why` and `how` questions to encourage students to think .					
3.	I ask questions that require students to analyse texts.					
4.	I ask students to elaborate on their responses.					
5.	I ask challenging questions that promote critical thinking					
6.	I encourage students to draw general conclusions of what has been discussed.					
7.	I ask questions that provide opportunities for students to solve problems.					
8.	I ask questions that require students to link their previous knowledge to new situations.					
9.	I ask students to employ critical thinking in their writing assignments.					
10.	I raise controversial issues and topics to promote in-class discussion.					
11.	I encourage students to think deeply about what they read.					

No	Statements	Strongly disagree	Disagree	Neither agree Nor disagree	Agree	Strongly agree
12.	I encourage students to work in groups to discuss their ideas and points of view.					
13.	I engage students in structured discussions.					
14.	I engage students in intellectual tasks and activities.					
15.	I apply debate in classroom to promote critical thinking .					
16.	I ask students to define their perspective views about certain issues through` role play` activities.					
17.	Lecture time is not sufficient for integrating critical thinking activities.					
18.	Large classroom size does not help for implementing critical thinking activities.					
19.	Assessment policy does not focus on developing students' critical thinking.					
20.	Integrating critical thinking is not a common practice for my colleagues.					
21.	There is no staff training for integrating critical thinking .					
22.	It is not easy to engage students in critical thinking activities.					

Appendix IV: Students` Questionnaire

Dear Students,

I am an MA student conducting research about exploring Libyan EFL university instructors' integration of critical thinking in English language Teaching (ELT) and identifying the challenges they encounter in this process. You are kindly invited to complete this anonymous questionnaire. Your valuable data will be kept confidential and will be used for the purpose of this research only.

Thank you very much for your kind cooperation

Please put a (√) in the box

No	Statements	Strongly disagree	Disagree	Neither agree isagree	agree	Strongly agree
1.	My instructor asks me thoughtful, open-ended questions.					
2.	My instructor uses` how `and `why` questions to encourage me to think.					
3.	My instructor asks me to analyze information.					
4.	My instructor asks me to elaborate my response.					
5.	My instructor asks challenging questions that promote critical thinking.					
6.	My instructor asks questions that provide me opportunities to respond to solve problems.					
7.	My instructor asks me to employ critical thinking in writing assignments.					
8.	My instructor raises some controversial questions to create discussion.					
9.	My instructor asks me to think deeply on what I read.					
10.	My instructor encourages me to work in groups to discuss my ideas and points of view .					
11.	My instructor engages me in structured discussions.					
12.	My teacher pays more attention to intellectual tasks and activities.					
13.	My instructor applies debate in classroom to make me think.					
14.	My instructors asks me to define my perspective views about certain point.					
15.	My instructor brings learning material that contains many tasks and activities.					

Appendix V: A measure of the relative importance of the arithmetic mean

مقياس الأهمية النسبية للمتوسط الحسابي

تم وضع مقياس ترتيبى للمتوسط الحسابي وفقا لمستوى أهميته وذلك لاستخدامه في تحليل النتائج وفقا لما يلي:

Scale	Strongly Agree	Agree	Neither Agree Nor Disagree	Disagree	Strongly Disagree
Score	1-1.79	1.8-2.59	2.6-3.39	3.4-4.19	4.2-5

مقياس الأهمية النسبية للمتوسط الحسابي

الأهمية النسبية	المتوسط الحسابي
Very Low	1-1.79
Low	1.8-2.59
Moderate	2.6-3.39
High	3.4-4.19
Very High	4.2-5

Appendix VI: Interview Schedule

Exploring Libyan EFL university instructors' integration of critical thinking in ELT

UNIVERSITY:-----

DATE:-----

INTERVIEWEE:-----

POSITION:-----

The interview questions:

- 1.How do you define critical thinking?
- 2.What do you think about integrating critical thinking in language teaching and learning?
- 3.In what aspects of your teaching do you integrate critical thinking?
- 4.From your experience, what activities do you find useful for promoting CT among students?
- 5.How to assess your students` critical thinking?
- 6.What challenges have you faced in implementing CT in your teaching?
- 7.What strategies have you followed for overcoming the challenges?

Appendix VII: Sample of Interview Transcript

Interviewer: How do you define critical thinking?

Interviewee: Critical thinking is the ability of students, teachers to analyze, think of what the text/discourse is about and also to analyze the general meaning, the surface meaning and deep meaning.

Interviewer: What do you think about integrating critical thinking in language teaching and learning?

Interviewee: It's important to integrate critical thinking in language teaching and learning. Because it helps learner to be able to analyze or understand text, also to be able to think about impeded meaning.

Interviewer: In what aspects of your teaching do you integrate critical thinking?

Interviewee: I usually integrate CT in my instruction as well as in testing itself .I don't just choose questions that depend on memorizing and just reside what teach students have taken in class, but I also to think, analyze and recall what taken in class, plus adding their own touch and thought.

Interviewer: According to your experience, what activities do you find useful for promoting students' critical thinking ?

Interviewee: Usually debates and discussion. Sometimes role-play.

Interviewer: What challenges do you face when implementing CT in teaching?

Interviewee: We need to prepare very well. Some course book don't contain CT activities. You need to prepare yourself. Some students aren't costumed with this kind of activities in class and questions when we come to exam. Classroom size ,lazy and shy guys are also effect.

Interviewer: What strategies do you follow to overcome the challenges of CT integration?

Interviewee: By searching the internet for activities that are comfortable to the level of the students and sometimes YouTube lessons. Those lessons help to implement CT activities and tasks in my class.

Interviewer: How do you assess your students' critical thinking?

Interviewee: I assess them written and verbally. In written exams, some students do better in written task than speaking activities. Since there are other aspects effect their answers.