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**The Effectiveness of Learning by Teaching in Developing the
Students' Learning and Teaching Skills
The Case of EFL Master Students at Ibn Khaldoun University of
Tiaret**

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Didactics

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Dedication

I would like to thank God first for making this blessing possible, and then my dear self for working hard, believing in me, and loving me.

I want to express the deepest appreciation for this work to my sweet Mother, who is extremely proud of me, as well as my father, siblings, nephews, and devoted friends.

A special dedication to my fiancée, who has been nothing but supportive and mentally helpful.

Rania Karima Maachi

Despite all the difficulties and obstacles, thank God I finished the discussion of my graduation memo...

I dedicate this success to the dearest person in my life who enlightened my path with her advice and support that gave me strength and determination, she was the reason to continue my studies, to the one who taught me patience.....MY MOTHER.

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List of Abbreviation and Accronyms

EFL: English as Forienf Language

LBT: Learning by Teaching

RF: Recursive Feedback

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Abstract

The aim of the present study is to examine the effectiveness of the learning by teaching technique. More specifically, the study at hands seeks to determine whether EFL master students have used this technique during their academic journey, the role of this technique in developing some learning skills and teaching competencies, and the attitudes that EFL master students have towards this technique. To collect the data, a questionnaire was distributed to a sample of 100 EFL master students. Furthermore, an interview was conducted with three EFL teachers. The results revealed that the majority of EFL master students are familiar with the learning by teaching technique. Moreover, the findings also showed that the use of the learning by teaching technique allows the students to develop so many skills that help them in their learning process and may help them in the futur as teachers. In addition to the use of the learning by teaching technique and its effects, the results indicated that most of the EFL master students like to give lessons to other students both inside and outside classrooms.

Keywords: Learning by Teaching method, preparing to teach, interactive teaching effectiveness of learning by teaching, learning and teaching skills.

General Introduction

1. Introduction

One of the current issues in the field of pedagogy is to develop interactive, engaging, and efficient learning techniques that improve and enhance the students' learning. Numerous techniques have been proposed by several researchers such as 'learning by summarizing' and learning by 'self explaining'. In 1980's, the philosopher Jean Jean-Pol Martin introduced a new learning technique, known as Learning by Teaching (abbreviated as LBT). This technique which was first applied in German schools gives the opportunity to learners to act as real teachers. Students who use the learning by teaching technique are expected to learn the study materials to teach their peers. This way of learning is implemented today as formal educational tool in many countries. Because of its effect in enhancing and improving the students' learning outcomes.

2. Research Motivation

Algerian university students, especially master students, are required, during their academic journey, to present lessons to their peers in formal sessions. They sometimes teach their peers outside classes. To the researchers knowledge, The advantages of this method of learning on university students, and the position of these students towards this method have not been examined yet. This motivates us to investigate the effectiveness of the learning by teaching technique, and the attitudes that EFL master students have towards this way of learning.

We choose EFL master students as target participants for two reasons : First. EFL master students has spent more than four years in the university. We believe that during this time, these students, unlike BA students have prepared numerous lessons to teach other

students inside or outside classroom. Second, presenting lessons in English seems more challenging for the EFL master students who find themselves obliged to think for efficient ways to convey what they have learned.

3. Aims of the Study

The goal of this study is to examine whether EFL master students use the learning by teaching method. It also seeks to determine the role of this method in developing learning skills that help the EFL master students during their learning process, as well as teaching competencies that may help them as future teachers. Furthermore, the present study aims at identifying the students' attitudes towards this method.

4. Research Questions

Depending on what is already stated, this research tries to clarify and answer the following questions :

- 1- Are EFL master students familiar with the learning by teaching technique ?
- 2- Does the learning by teaching technique help EFL master students to develop some learning skills?
- 3- Does the learning by teaching technique help EFL master students to acquire some pedagogical competencies.
- 4- What are the attitudes that EFL master students have towards the learning by teaching technique.

5. Research Hypotheses

The following hypotheses are initially assumed:

- 1- The EFL master students are familiar with the learning by teaching technique
- 2- The learning by teaching technique help the EFL master students to develop so many learning skills that help them to improve their learning
3. The learning by teaching technique help the EFL master students to acquire so many pedagogical competencies that help them as future teachers.
4. Some students like the learning by teaching technique, while others dislike it.

6. Significance of the Study

To the researchers' knowledge, the effectiveness of learning by teaching on Algerian university students has not been examined yet, the significance of this research, therefore, lies in its being the first attempt at investigating the role of learning by teaching in developing learning and pedagogical skills. Moreover, the study is beneficial to teachers as well as students as it shows the effectiveness of learning by teaching in developing learning and teaching skills.

7. Research Methodology

To conduct the research, two research tools were used : Questionnaire and interview. The questionnaire was distributed to a sample consisting of 100 EFL master students at Ibn khaldoun University. The interview was conducted with three EFL teachers.

8. Organization of the thesis

This dissertation is divided into three chapters. The first chapter is about the literature review which holds four main titles. It provides the definition and general review of learning by teaching technique with studies related to this theme. The second chapter is devoted to the practical part. It describes the research protocol followed to collect the data . Finally the third chapter is dedicated to present and analyze the data obtained from the questionnaire and the interview.

Chapter one
Literature Review

1.1. Introduction

In their academic journey, students have the chance to prepare lessons to teach their peers. This method which is known as learning by teaching gives the opportunity to students to increase their learning gains and to develop many psychological and pedagogical competencies. To teach their peers, students have to prepare the study materials beforehand. Learning by teaching method can be applied using different strategies. Students may teach their peers inside or outside classroom setting. They may provide face to face sessions, written documents or tutorial videos. Moreover, students can teach their peers by engaging in a teacher role or by acting as co-teachers.

The present chapter attempts to shed light on the learning by teaching technique. It defines this method of learning and illustrates its phases. Moreover, the chapter presents the different strategies that student may apply when they teach their peers. Besides, it reviews some relevant studies that have examined the effectiveness of learning by teaching in enhancing the students' learning outcomes and developing some psychological and pedagogical skills.

1.2. Definition of Learning by Teaching

'Learning by teaching' (abbreviated as LBT) is a method of learning by the means of which students read and understand some materials, and provide lessons to teach their peers. It is a technique used to "learn new material more deeply through teaching it to others" (Fiorella & Mayer, 2013, p. 281). This means that to use the learning by teaching technique, students should, first, prepare carefully the material(s), and, then, teach other students. To explain the content of the learning materials, students may provide face to face presentations, tutorial videos, or written handouts (Kobayashi, 2019). According to Chase, Chin, Oppizzo, and Schwartz (2009) learning by teaching can be described as a protégé effect. This method,

For them, gives the opportunity to learners to engage in a teacher role and to be, therefore, responsible for the learning of their peers.

Learning by teaching (Lernen durch Lehren, in German, abbreviated as LdL) was established, in German school, by Jean-Pol Martin in 1980's (as cited in Martin, 1985). This method of learning is different from learning by self-explaining. When the students use the learning by teaching methods, they should, first, prepare a lesson, and then teach it to other students inside or outside the classroom. By contrast, learning by self-explaining takes place when the students explain to each other some points during the process of learning (Fiorella and Mayer, 2016).

1.3. The History of Learning by Teaching

The idea of having learning materials by particular learners to teach them to other learners was first proposed by the famous philosopher and educator John Comenius (Kacim et al, 2020). According to Krouse, Gerber, & Kauffman (1981) teaching learners by other learners was practiced since the first century AD.

By the end of 1970's, the idea of learning by teaching have received a lot of attention by several researchers who have conducted numerous systematic researches to determine its advantages and its effectiveness as a learning strategy (Trovato and Bucher, 1980). In the early 1980's, Jean-Pol Martin inspired by this idea and established it as a method of learning in numerous of his publications. This method was first applied in German schools where older students were asked to teach younger ones the French language. Later on, the method was implemented in German universities. Today, this method is implemented as formal education tools in many countries (Grezga and Schöner, 2008).

1.4. Types of Learning by Teaching

According to Roscoe and Chi (2007), when the students use the learning by teaching technique, they may engage in either reflective knowledge-building or knowledge-telling.

- **Reflective Knowledge Building**

Reflective knowledge building refers to “monitoring of comprehension and knowledge” (Roscoe and Chi, 2007, p.535). That is, students who teach their peers and engage in reflective knowledge building, pay more attention to their peers’ understanding. In addition to the study material, the students are required to engage deeply with content of the lesson by analyzing it in-depth and examining it from various angles, and then present the content to their peers (Roscoe and Chi, 2007)

- **Knowledge Telling**

Knowledge telling refers to “summarization with little monitoring or elaboration” (Roscoe and Chi, 2007, p.535). That is, students who teach their peers and engage in knowledge telling, summarize the content of the lessons as it is and present it to their peers without showing any critical analysis (Roscoe and Chi, 2007, p.535).

In his review, Duran (2016) assumed that students who use the learning by teaching technique may perform one of the following strategies: (1) Learning by developing educational materials, (2) Learning by replacing a teacher in the front of the class, (3) Learning-by-teaching through cooperative learning techniques and methods, (4) peer tutoring, (5) peer assessment, (6) students as co-teachers.

- **Learning by developing educational materials :** Students who use this strategy are expected to learn the study material and develop didactic materials for their peers to use them at a later stage such as creating tutorial videos.
- **Learning by replacing a teacher in the class :** This is the most common used strategy. Students who use this strategy engage in a teacher role and teach their peers as real teachers.
- **Learning-by-teaching through cooperative learning techniques and methods:** This strategy is similar to jigsaw technique. Students who use this strategy work in small groups. Each group is required to focus on specific elements, and then share with other groups what they have learned.
- **Peer tutoring :** This strategy is somehow similar to the second one. Students, who use this strategy perform as teachers and teach their peers. However, unlike the second strategy, peer tutoring may take place outside classroom setting.
- **Peer assessment :** Students who use this strategy learn from evaluating, correcting and providing feedback to their peers.
- **Students as co-teachers :** Students who use this strategy work with their teachers as one team to teach other students.

1.5. Phases of Learning by Teaching

Okita and Schwartz (2019) introduced three phases to 'learning by teaching method'. These phases are : (1) preparing to teach, (2) act of teaching and (3) observing recursive feedback.

1.5.1 Preparing to Teach

The first phase in 'learning by teaching' is preparing to teach. At this phase, "tutors consider what knowledge to deliver and how to deliver it in advance of interacting with pupils" (Okita and Schwartz, 2019, p.378). Before teaching any study material, students who

are required to teach their peers, should first design the overall structure of the study material. They have to determine the information they want to transfer to their peers, the strategies and the methods they have to use to transfer this information. Gartner et al (1971, p.62) assumed that a student who prepares the study material to teach his peers, involves in several preparing activities :

He reviews the material; he has to organize, prepare, illustrate the material to present it to his student; he may try to reshape or reformulate it so as to enable his pupil to learn it and thus himself sees it in new ways; he may need to seek out the basic character of the subject, its structure, in order to teach it better, and may thereby himself understand it better.

For many researchers, such as Annis (1983) and Baragh and Scul (1980), preparing to teach is the most important stage in ‘ the learning by teaching approach’. For them good preparation effects positively the learning outcomes of both the students who teach and the students who are being taught.

Okita and Schwartz (2019) argued that ‘preparing to teach’ have an effect of three main aspects which are : motivation, generation, and metacognition. When students prepare the study material to teach their peers, they feel responsible for the learning of these peers. This enhance the students’ motivation to analyze and understand the study material before presenting it. Moreover, preparing to teach has a generation effect. Students, before teaching the study material, frequently think of the information they will convey to their peers. One way to do this is to frequently retrieve this information from memory. Furthermore, preparing to teach can engage in metacognition. Students who prepare the study material to teach their

peers, they organize their knowledge and information in a specific way that allows them to interact with their peers and answer their questions.

1.5.2. The Act of Teaching

After preparing the content of the lesson, students present the content to their peers. This is the second phase of the learning by teaching approach, which is called the act of teaching. At this phase, students engage in a teacher role and explain the study materials they have prepared to their peers. Instead of just reporting the content of the lesson, the students, at this stage must act as real teachers and motivate their peers to interact with the course (Okita and Schwartz, 2019). To do this, the students are required to interact with their peers through asking short questions, answering their peers' questions, and creating interactive debates (Webb, 1989).

1.5.3. Observing Recursive Feedback

The last phase of the learning by teaching approach is to observe recursive feedback (RF). According to Okita and Schwartz (2019), recursive feedback occurs when "tutors observe their pupils feedback". Okita and Schwartz (2019) maintained that after teaching the study material, it is necessary to observe how the students, who are taught, apply what they have learned. From Okita and Schwartz's point of view, observing the student's feedback is important because it allows the tutors to determine the extent to which these students understand the lesson, which in turn, gives them recursive feedback to re-explain and clarify any point in case of misunderstanding.

The Three phases of the learning by teaching approach can be summarized in diagram (1) below :

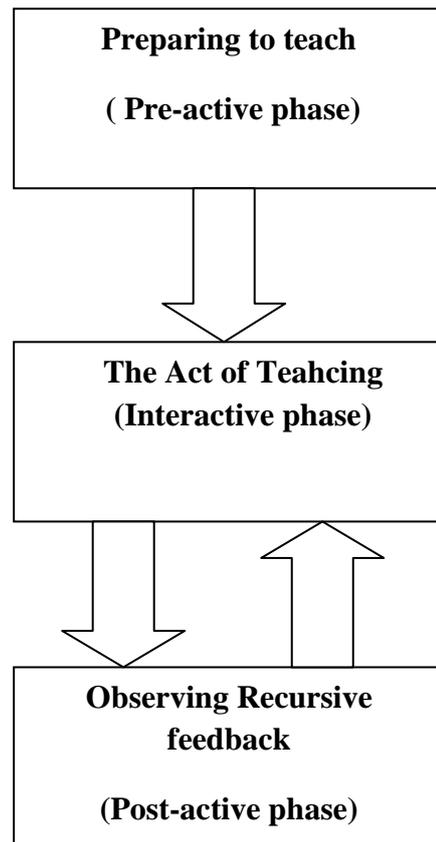


Diagram (1) : Three phases of learning by teaching approach

1.6. Effects of Learning by Teaching

It has been argued by a number of philosophers and researchers (Graves, 1972 ; Bargh and Schul, 1980 ; Roscoe and Chi , 2007 ; Duran, 2016 ; Fiorella and Mayer, 2016 ; Koh et al, 2017 ; Kobayashi, 2019 ; Kacim et al, 2020) that learning by teaching is an effective learning strategy that mantian and enhance learning gains and pedagogical competencies . Tsui (2010, p. 28) assumed that “ learning by teaching is a challenging, proactive endeavor, characteristics that make learning effective, at times even enjoyable”. Likewise, Grzega, J., & Schöner, M. (2008, p. 169) clearly stated that learners who engage in a teacher role are

given the chance to acquire creativity, independence, selfconfidence and key competencies, such as the ability to work in teams, the ability to communicate, complex thinking, the competence to seek and find

information, explorative behaviour, presentation skills, project competence, internet skills, the ability to structure information and generate knowledge, punctuality, reliability and patience

Numerous researchers argued that most of the advantages of learning by teaching lie in the activities the students perform during the preparation phase. Bargh and Schul (1980) argued, based on empirical evidence, that students who are asked to teach their peers are considered as pre-service teachers. These students, who have little or no experience in teaching, usually put more efforts in summarizing, analyzing, and developing the content of the lesson before presenting it in front of their peers. These efforts that students do when they prepare a lesson to teach their peers allow them to understand the content of the lesson better than summarizing it for other reasons such as submitting an assignment or passing an exam.

Similarly, Roscoe and Chi (2007) assumed that students who prepare lessons to teach other students have the advantage of monitoring their own understanding and constructing new knowledge. Likewise, Fiorella and Mayer (2016, p. 728) proposed that the preparation phase is very effective in that it “involves selecting the most relevant information to include in one’s explanation, organizing the material into a coherent structure that can be understood by others, and elaborating on the material by incorporating one’s existing knowledge”.

Following the same line of thought, Kacism et al (2020) assumed that in the preparation phase, students are expected to design a lesson, organize the content of the lesson, read supporting materials, and select effective strategies to convey information. All these processes help the students to achieve a deep understanding of the topic being taught.

Interestingly, other researchers argued that, in addition to achieving better understanding of the content of the lesson, learning by teaching strategy help the students

who engage in a teacher role to develop so many pedagogical competencies. Graves (1972), asserted that students who teach their peers are given the chance to learn how to teach. Duran (2016, p.5) stated that “learning-by-teaching obviously has effects on teaching performance itself or how teachers can learn by teaching their students”. He assumed that learning by teaching turned classrooms into “communities of practice, where everyone learns, including the teacher. This involves not only sharing with students the ability to teach, but also deliberately and systematically fostering situations in which students learn by teaching their peers” (Duran, 2016, p.7). Moreover, Koh et al (2017, p.401) believed that “teaching educational materials to others enhance the teachers’ own learning of those to-be-taught materials”.

Furthermore, Kobayashi (2019) emphasized the role of interactive teaching in enhancing the students’ learning. Kobayashi (2019) argued, based on empirical study that, students who prepare to teach and engage in interactive teaching increase their learning more than those students who prepare to teach without engaging in interactive teaching.

1.7. Studies on Learning by Teaching

Many researches (Fiorella and Mayer, 2013 ; Aslan, 2015 ; Muis et al, 2015 ; Stollhans, 2016 ; Kacim et al ,2020) on the effectiveness of learning by teaching have shown that tutors who prepare lessons to teach their tutuess develop and acquire various learning and teaching skills and competencies that help them to improve their learning outcomes. Below is a summary of numerous researches which have provided scientific evidence to support the effectiveness of learning by teaching.

Fiorella and Mayer (2013) conducted an experiment to explore the the role of interactive teaching in enhancing the students’ learning. In this experiments, the researchers divided the participants into three groups : Control group, preparation group, and teaching group.

Students in the control group were asked to study a lesson on the Doppler Effect. These students were not expected to teach their peers. Students in the preparation group and teaching group were asked to study the same material to teach their peers at a later stage. Unlike the students of the preparation group who did not engage in interactive teaching, the students of the teaching group presented the material to their peers. After that the researchers designed a test for all the groups to assess their understanding. The results of the study revealed that students of the preparation group and teaching group outperformed the students of the control group. A week later, the researchers gave the same test to the three groups. The findings of the experiment indicated that students of the teaching group outperformed the students of the preparation and the control group. Based on these results, the researchers argued that students who engage in actually interactive teaching achieve a deep understanding of the material that may last for a long period of time.

Moreover, Aslan (2015) examined the effectiveness of the learning by teaching technique in developing 21st century skills. The aim of the study is to determine the effect of the learning by teaching technique in science classroom settings. To collect data, focused group discussion and structured interviews were conducted with 33 pre-service teachers. The data were analyzed using content analysis. To determine the effect of the learning by teaching technique, the researchers investigated the advantages of learning by teaching, the role of the learning by teaching methods in preparing research questions, preparing and implementing activities, and the role of the teacher.

The results of the study revealed that the learning by teaching technique helped the pre-service teachers to acquire several skills. The results showed that pre-service teachers acquired numerous psychological competencies like self-confidence, communication skills, decision making, and problem solving,

In addition to psychological competencies, the findings of the study indicated that teaching other students gives the opportunity to pre-service teachers to improve their own learning. Thanks to this strategy, the pre-service teachers learned how to search for information, how to organize and share ideas, how to work in groups, and how to conduct researchs.

Moreover, the learning by teaching strategy seems very effective in developing pedagogical skills. Pre-service teachers who engaged in this strategy learn how to teach effectively. The results demonstrated that pre-service teachers learned how to design and prepare pedagogical contents, how to transform and convey knowledge, how to interact with the students, how to ask interactive questions, how to answer the students' questions, how to assess the students' understanding, how to motivate and attract the student's attention to interact with the lessons.

Another research was conducted by Muis et al (2015) who studies the learning outcomes of elementary students who used learning by teaching method during complex mathematics problem solving. To conduct this experiment, 78 elementary students were divided into two groups : experimental and control groups. The experimental group and the control groups were assigned to learning by preparing to teach condition and learning for learning condition respectively. After that, the researchers measured the concept maps that were developed by the two groups to solve mathematical problems. The findings of this experiment revealed that the students of the experimental group who were assigned to learning by preparing to teach condition developed metacognitive processing strategies that help them to acquire higher level of mathematics problem solving achievement compared with students in the control condition.

Likewise, Stollhans (2016) conducted a study to determine the advantages of learning by teaching in developing transferable skills. In this study, the researcher, first, asked her second year students at the University of Nottingham to design lessons about one aspect of the German language and deliver and teach these lessons to first year students. The students were free to present the lesson in classrooms or prepare video tutorials. The researcher, then, designed a questionnaire for the student-teachers to determine the effect of this strategy in developing learning gains. The results of the study revealed that these students developed numerous transferable skills that enhance their learning, such as teamwork, creativity, communication and presentation skills.

Another experimental study was carried out by Kacim et al (2020) who investigated the effectiveness of the learning by teaching technique by comparing the scores of two groups of EFL university students. The first group (the experimental group) included 22 students who were taught by their teacher English pedagogical content for half of the semester. These students taught other university students afterward. The second group (control group) contained 24 students who were taught, as the students of the experimental group, the same pedagogical content by the same teacher for the whole semester. To assess their skills, two tests were designed for both groups. The first test was given to the students of the two groups at the beginning of the semester, while the second test was given to them at the end of the semester. The results of the tests were analyzed using ANOVA. The findings of the study indicated that the scores of the students of the two groups improved in the second test. The researchers argued that since the experimental group's performance in the second test is similar to the performance of the control group, regardless of the shorter instruction periods, this suggests that the learning by teaching strategy helped them to improve their learning.

Based on what have been presented above, one can safely argue that the effect of learning by teaching lies in helping the learners, students, or pre-service teachers to develop

psychological, learning and pedagogical competencies. Concerning the psychological competencies, the reported studies on the effectiveness of learning by teaching show that tutors who prepare materials to teach their tutees learn how to :

- Increase their self confidence
- Communicate effectively
- Increase their internet skills
- Increase their sense of responsibility
- Be punctual
- Be patient
- Make decisions
- Solve problems

Regarding the learning skills, the reported studies that examined the role of learning by teaching in enhancing the learning gains, reveal that learning by teaching gives the opportunity to tutors who prepare materials to teach their tutees to :

- Maintain and enhance their learning
- Achieve a deep understanding of the topic being taught
- Construct new knowledge
- Monitor their own learning
- Learn how to conduct researches
- Develop metacognitive skills
- Acquire presentation skills
- Increase their motivation to learn

As far as the pedagogical skills, the reported studies reveal that tutors who prepare materials to teach their tutees and engage in actually teaching learn how to :

- Be creative
- Structure information
- Organize the study material
- Elaborate on the material
- Design a lesson
- Select effective strategies to transfer information
- Engage in a teacher role
- organize and share ideas
- Prepare pedagogical contents
- interact effectively with the students
- Ask interactive questions
- Answer the students' questions,
- Assess the students' understanding,
- motivate the learners to interact with the lessons
- Attract the student's attention

1.8. Conclusion

This chapter gives an overview about learning by teaching. It defines this way of learning and explained briefly its development. The chapter also presented the phases of learning by teaching, and the different strategies the tutors may use when they engage in interactive teaching. Moreover, it reviews some relevant studies which have examined the effectiveness of learning by teaching in developing psychological, learning and teaching competencies.

Chapter Two

Methodology

2.1. Introduction

The present chapter is devoted to explain the methodology followed to conduct this research. It presents the research protocol used to explore the effectiveness of learning by teaching on EFL master students. The chapter highlights the aim behind conducting this study, and describes the research design. Moreover, it provides a detailed description of the sample population, the process of data collection, and the research tools used to gather data.

2.2. Research Aims

As mentioned earlier, the aim of the present research is to :

- Determine whether the EFL master students have used the learning by teaching technique during their learning process.
- The effects of this technique in developing learning and pedagogical skills
- The attitudes that students have towards this technique.

2.3. Research Design

To examine a particular phenomenon in the field of human sciences, researchers may use quantitative and/or qualitative research. Quantitative research “ refers to a set of strategies, techniques and assumptions used to study psychological, social and economic processes through the exploration of numeric patterns” (Ahmad1 et al, 2019, p.2828). By contrast, qualitative research is descriptive. It is used to analyze phenomena that can be observed but can not be measured. That is, it investigates phenomena in their natural contexts.

Qualitative research is a process of naturalistic inquiry that seeks an in-depth understanding of social phenomena within their natural setting. It focuses on the "why" rather than the "what" of social

phenomena and relies on the direct experiences of human beings as meaning-making agents in their everyday lives (Ahmad et al, 2019, p.2828).

It seems that, in qualitative studies, researchers try to examine a particular phenomenon from the participants' viewpoints using different strategies like open ended questions, observation, analyzing documents or visuals...etc. (Merriam, 2002).

To conduct this research both quantitative and qualitative approaches were used. The quantitative approach was used to provide numerical description of (1) the use of the learning by teaching technique, (2) the effects of this technique, and (3) the students' attitudes towards this technique. To this end, a questionnaire is distributed to a sample consisting of 100 EFL master students. The qualitative approach was applied to determine the teachers' viewpoints regarding the learning by teaching technique.

2.4. Participants

To collect relevant and accurate data, one hundred EFL master students from Ibn Khaldoun University were randomly chosen to be the representative sample of this study. It is worth mentioning that the students who participated in this research are from two different specialties: Didactics and linguistics. Regarding the interview, we selected three EFL teachers who work in the English department of Ibn Khaldoun University. Table (1) below describes the participants involved in the present study.

Table (1) : The participants involved in the study

Methods of data collection	Participants	
Questionnaire	100 EFL master students	
	Didactics	Linguistics
	79	21
Interview	3 EFL teachers	

EFL master students at Ibn Khaldoun University were selected as target participants for two reasons :

- First., EFL master students has spent more than four years in the university. During this time, these students, unlike BA students have prepared numerous lessons to teach other students inside or outside classroom.
- Second, presenting lessons in English seems more challenging for the EFL master students who find themselves obliged to think for efficient ways to convey what they have learned.

2.5. Methods of Data Collection

As mentioned earlier, two methods were used to collect the data : Questionnaire and interview.

2.5.1. Questionnaire

A questionnaire is a tool of investigation used to extract information from certain people. A questionnaire is one of the useful tools that provide numerical data. It refers to “list of mimeographed or printed questions that is completed by or for a respondent to give his

opinion” (Roopa and Rani, 2012, p.273). A questionnaire can be classified into four main categories: Contingency questions, matrix questions, closed-ended questions, and open-ended questions.

Many researchers, especially students, prefer to collect data using questionnaire. This is because questionnaire has some advantages. According to Young (2019, p.4), questionnaire is one of the commonly used method for the following reasons:

- Questionnaire is easy to construct
- Questionnaire is often freely available to researchers
- Questionnaire is portable or can be made available online
- Questionnaire can be used to gather large datasets relatively easily, either through direct contact, by mail, or online via the web or email.
- The data obtained from a questionnaire can be processed and analysed relatively easily compared to spoken data which has to be recorded and transcribed before analysis.

The questionnaire used in this study is designed in relation to the research aim. The questionnaire consists of three sections. Section one is structured to determine if the EFL master students have used the learning by teaching technique during their learning process inside and outside the classroom. Section two is used to identify the effects of the learning by teaching technique in developing learning and teaching skills. Section three is devoted to the attitudes the students have towards this technique.

- **Section one**

The first section of the questionnaire includes six questions. The aim of these questions is to identify the extent to which EFL master students have used the learning by teaching method during their academic journey in the university.

Question 1: The aim of question one is to identify if EFL master students have used ‘learning by replacing a teacher’ strategy.

Question 2: The aim of question two is to identify the extent to which EFL master students have used ‘learning by replacing a teacher’ strategy.

Question 3: The aim of question three is to determine the modules in which EFL master students have used ‘learning by replacing a teacher’ strategy.

Question 4: The aim of question four is to find out if EFL master students work in groups to teach their peers.

Question 5: The aim of question five is to identify if EFL master students have used peer tutoring strategy

Question 6: The aim of question six is to identify the extent to which EFL master students have used peer tutoring strategy.

- **Section two**

The second section is composed of two subsections, each of which includes eight questions. The first subsection is devoted to determine the effects of learning by teaching in developing learning competencies. The following learning competencies are taken into consideration:

- Achieving a deep understanding of the topic

- Interaction with the tutees
- Developing communication skills
- Developing IT skills
- Developing presentation skills
- Enhancing motivation to learn
- Developing self confidence
- Sharing ideas and knowledge with the tutees

The second subsection is dedicated to explore the effects of learning by teaching in developing teaching competencies. The following teaching competencies are taken into consideration:

- planning and designing a lesson
- Structuring the content of the lesson using coherent and illustrative sections
- Transforming information to students
- Attracting students' attention
- Encouraging students' participation
- Engaging in a teacher role
- Using creative strategies to transmit knowledge
- **Section three**

The third section consists of six questions. The aim of these questions is to determine the attitudes that EFL master students have towards the learning by teaching method.

Question 1: The aim of question one is to identify if EFL master students like to use ‘learn by replacing a teacher’ strategy.

Question 2: The aim of question two is to determine if EFL master students like to use peer tutoring strategy.

Question 3: The aim of question three is to find out if EFL master students like to use learning by teaching to improve their learning gains.

Question 4: The aim of question four is to determine the extent to which EFL master students feel excited when they engage in interactive teaching.

Question 5: The aim of question five is to explore the reasons that make EFL master students feel excited they engage in interactive teaching.

Question 6: The aim of question six is to explore the reasons that do not make EFL master students feel excited they engage in interactive teaching.

2.5.2. Interview

In addition to the questionnaire, the researchers conduct an interview with three EFL teachers. The aim of the interview is to determine the teachers’ viewpoints regarding the learning by teaching technique. The interview includes seven questions. It is worth mentioning that all the teachers were asked the same questions.

Question 1: The aim of question one is to determine if EFL university teachers give the opportunity to EFL master students to apply learning by teaching method.

Question 2: The aim of question two is to determine the extent to which EFL university teachers rely on learning by teaching to increase the students’ learning outcomes.

Question 3: The aim of question three is to determine what EFL teachers think regarding the role of learning by teaching in developing learning skills.

Question 4: The aim of question four is explore, from the teachers'viewpoints, the learning skills that EFL master students have acquired.

Question 5: The aim of question five is determine what EFL teachers think regarding the role of learning by teaching in developing pedagogical skills.

Question 6: The aim of question six is to explore, from the teachers'viewpoints, the pedagogical skills that EFL master students have acquired

Question 7: The aim of question seven is to explore, from the teachers'viewpoints whether EFL master students like to engage in interactive teaching.

2.6. Pilot Study

Before collecting data from our participants, a pilot study was conducted with four EFL master students to make sure that the questionnaire provides reliable and valid results. All the students' remarks were taken into consideration to refine the questionnaire before using it to collect the data.

Chapter Three

Results and Discussions

3.1. Introduction

The third chapter is devoted to analyse the data obtained from the questionnaire and the interview. The aim of this chapter is to describe and analyze the use and the effect of the learning by teaching technique, as well as the attitudes that EFL master students have towards this technique. To analyse data, two sections are provided. Section one is used to describe and discuss the data gathered from the EFL master students at Ibn Khaldoun university. Section two is used to present and analyze the data that were collected from EFL teachers.

3.2. Data Analysis

3.2.1. Analysis of the Questionnaire

The data extracted from the questionnaire are analyzed, according to the design of the questionnaire, into three sections: (1) the use of the learning by teaching technique, (2) the effects of the learning by teaching technique, and the students' attitudes towards the learning by teaching technique. The results obtained from the questionnaire are presented through tables and figures.

I. The Use of Learning by Teaching

Question 1. As a university student, have you ever presented a lesson in the class ?

Table 2: Presenting a lesson in the class

Answers	Yes	No
Participants	94%	06%

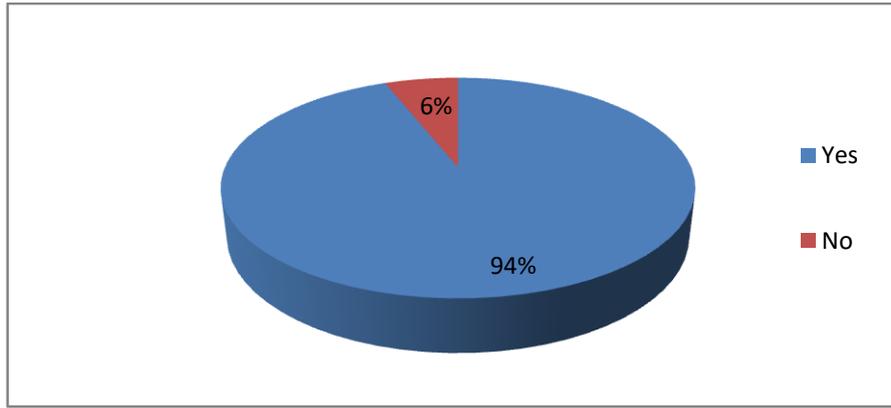


Figure 1 : Presenting a lesson in the class

As Figure (1) clearly shows, the majority of the EFL master students (94%) have presented a lesson in their classes.

Question 2 : If yes, how many times ?

Table 3 : Frequency of presenting lesson (s) in the class

Suggestions	Once	Twice	More than twice
Participants	08%	40%	52%

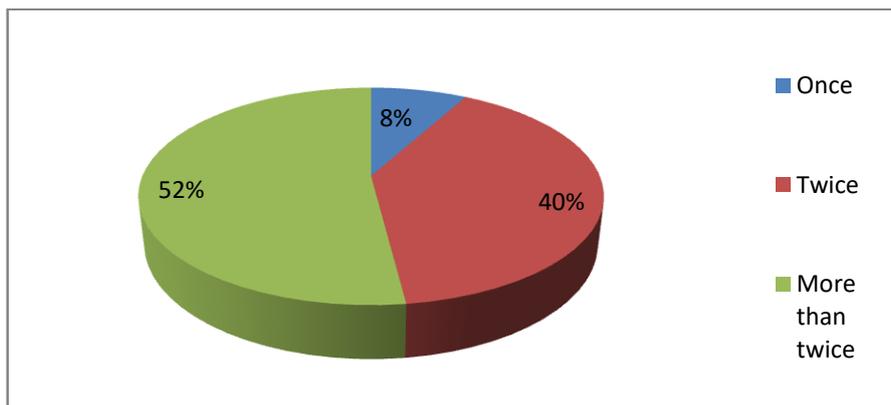


Figure 2 : Frequency of presenting lesson (s) in the class

Figure (2) indicates that 52% of the participants present lessons more than twice, while 40% of them present lesson twice. Only 8% of the participants present one lesson.

Question 3 : Mention the module (s) in which you have presented the lesson (s)

Table 4 : The modules in which students present their lessons

Suggestions	Grammar	Didactics	Oral expression	Litterature	Language planning
Participants	59%	04%	29%	02%	07%

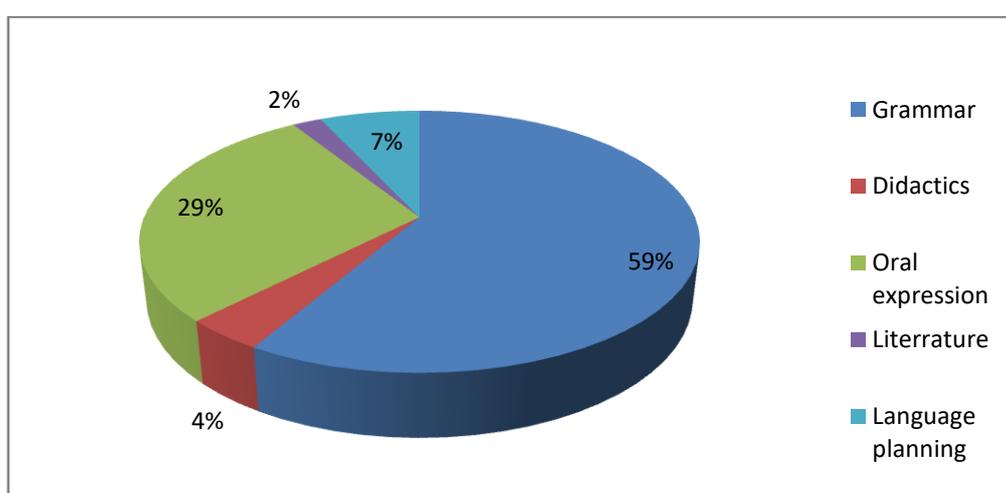


Figure 3 : The modules in which students present their lessons

As shown in figure (3), 59% of the participant present their lessons in the grammar module, 29% of them give lessons in the oral expression module. However, less then 10% of the participants claim that they present lessons in language planning, didactics, and literature modules.

Qusetion 4 : Have you presented the lesson (s) by yourself or with your teammate (s) ?

Table 5 : Presenting lesson (s) with teammates

Answers	By yourself	With your teammates
Participants	82%	18%

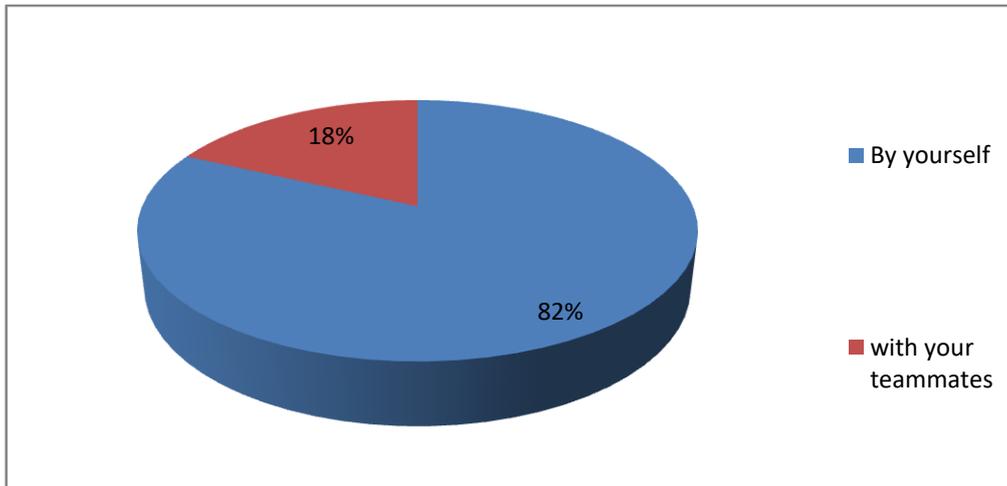


Figure 4 : Presenting lesson (s) with teammates

The results reveal that most of the students (82%) present their lesson (s) alone, while 18% of them give lessons in groups.

Question 5 : Have you ever taught a lesson to your classmates outside the class ?

Table 6 : Presenting lesson (s) outside classrooms

Answers	Yes	No
Participants	78%	22%

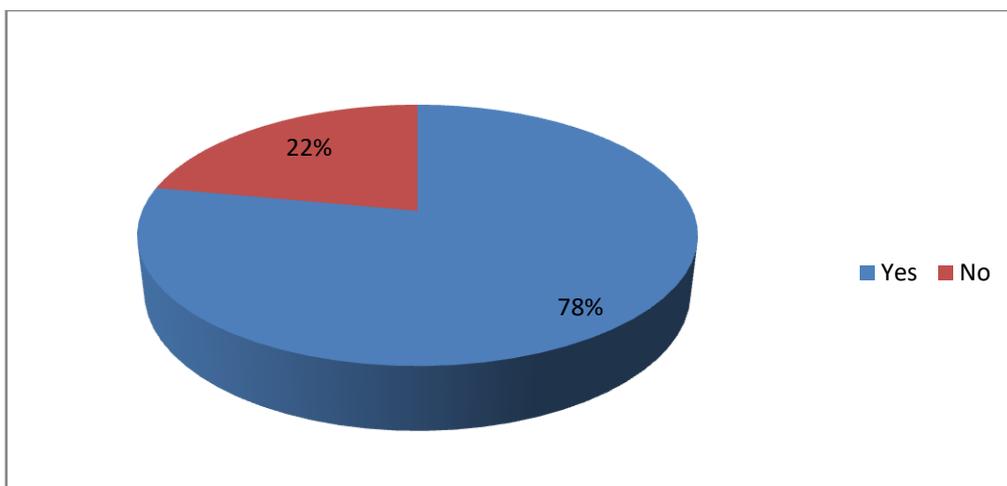


Figure 5 : Presenting lesson (s) outside classrooms

Figure (5) clearly indicates that the majority of the participants (78%) present lesson (s) outside their classes, only 22% of them claim that they did not give lesson outside the class .

Question 6 : If yes, how many times ?

Table 7 : Frequency of presenting a lesson outside the class

Suggestions	Once	Twice	More than twice
Participapants	%09	%10	%81

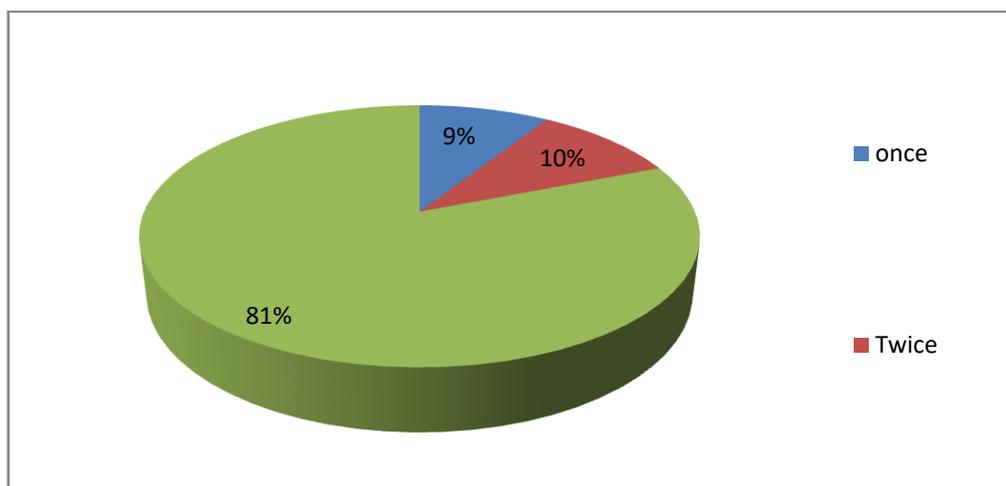


Figure 6 : Frequency of presenting lesson (s) outside the class

The results shows that the majority of the students (81%) present lesson (s) outside their classrooms more than twice. However, 10% of them claim that they give lesson (s) outside their classrrom twice. Only 9% of the participants assume that they presenet lesson (s) outside the class only once.

II. The Effects of the Learning by Teaching Technique

a. The Effect on the Learning Process

Table 8 : The Effect of the Learning by Teaching Technique on the Learning Process

Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Achieve a deep understanding of the topic	52%	47%	01%	00%	00%
2. Interact more with your classmates	12%	87%	01%	00%	00%
3. Develop your communication skills	98%	02%	00%	00%	00%
4. Develop your IT skills	67%	33%	00%	00%	00%
5. Develop your presentation skills	100%	00%	00%	00%	00%
6. Raise your motivation about learning	63%	30%	04%	03%	00%
7. Develop your self-confidence	98%	02%	00%	00%	00%
8. Share what you have learned with your classmates	55%	22%	19%	04%	00%

Table (8) shows that the learning by teaching technique allows the students to develop so many competencies and skills that help them in their learning process. These competencies and skills are analyzed below.

- **Achieving a deep understanding of the topic**

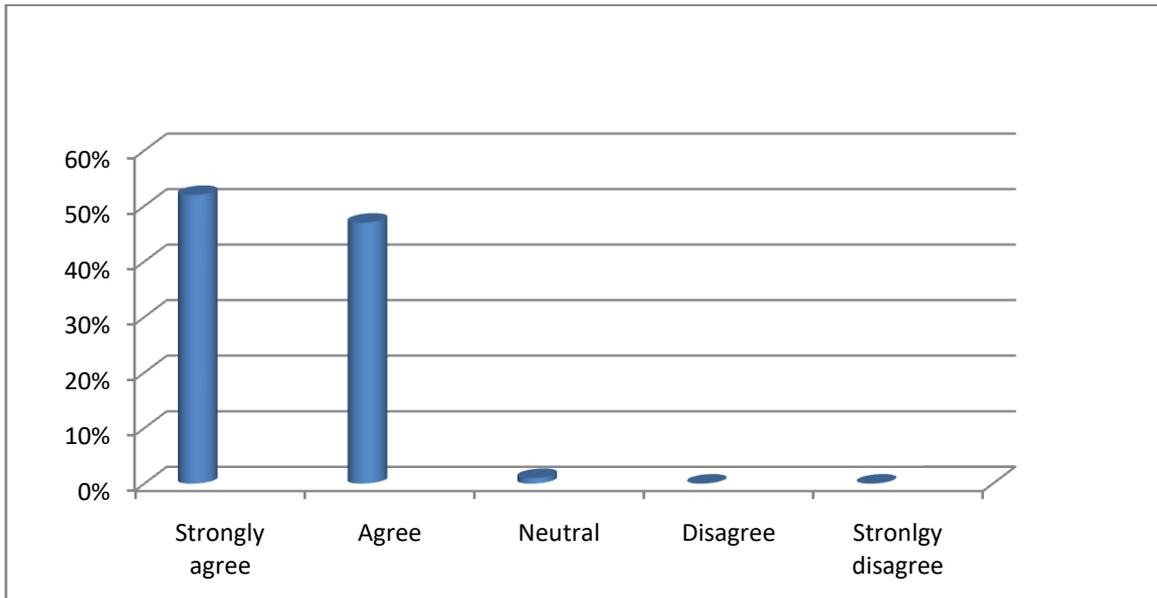


Figure 7: Achieving a deep understanding of the topic

Figure (7) above indicates that all the students confirm that giving lessons to other students helps them to understand more these lessons.

- **Interacting with classmates**

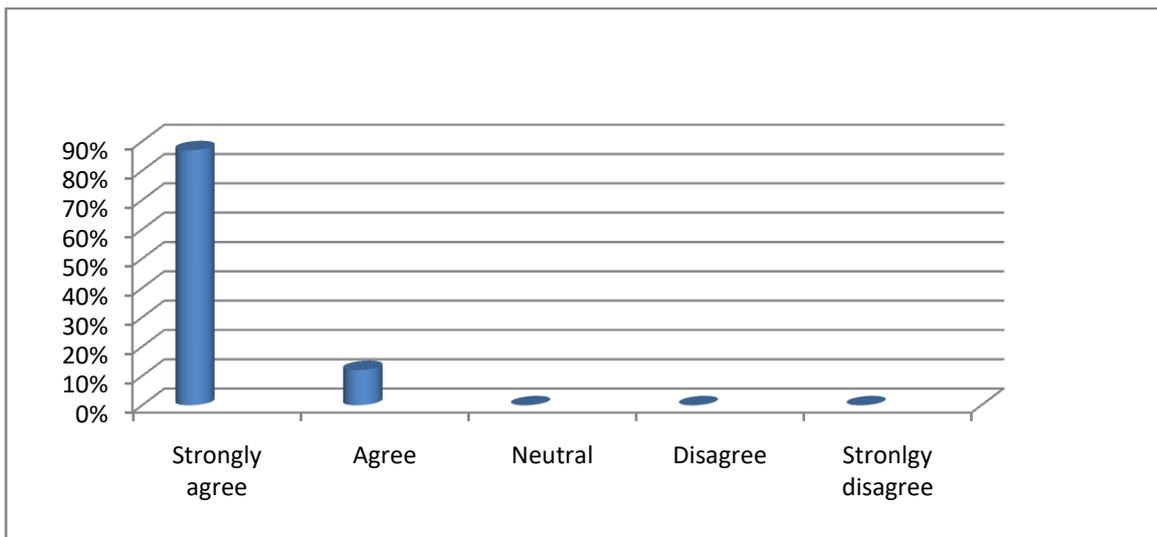


Figure 8: Interacting with classmates

Figure (8) shows that 87% of the participants strongly agree that presenting lessons to other students gives them the opportunity to interact more with these students. Likewise 12% of these participants agree that they interact more with the students when they teach them.

- **Developing the learner's communication skills**

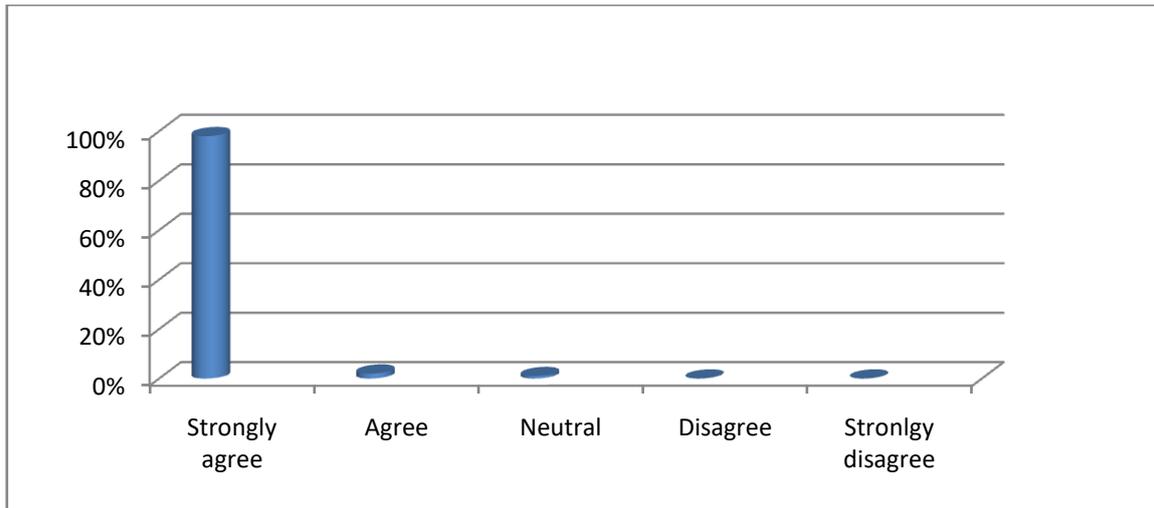


Figure 9: Developing the learner's communication skills

Figure (9) clearly indicates that the majority of the students (98%) confirm that presenting lessons to other students help them to develop their communication skills.

- **Developing the learner's ICT skills**

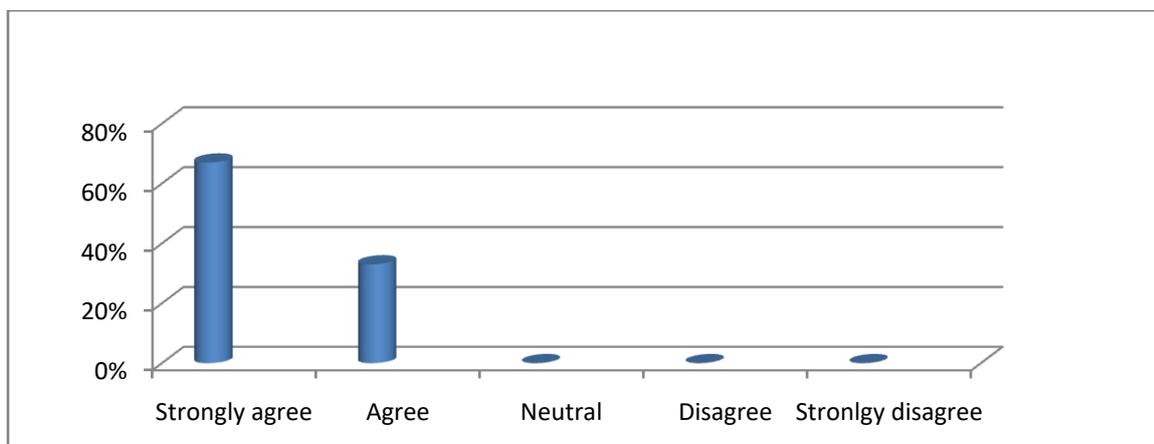


Figure 10 : Developing the Learner's ICT skills

Figure (10) shows that 67% of the students strongly agree that presenting lessons to other students develop their IT skills. Besides, 33% Of these participants agree that they acquire some IT skills when they give lessons to other students.

- **Developing the learner's presentation skills**

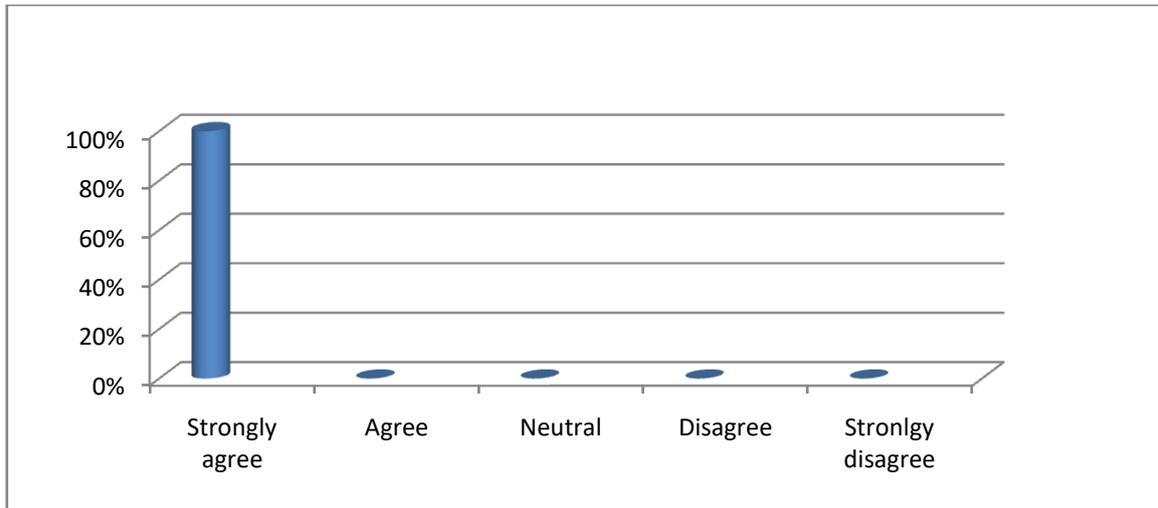


Figure 11 : Developing the learner's presentation skills

All the students (100%) strongly agree that presenting lessons to other students gives them the opportunity to develop skills of presenting lessons.

- **Raising the learner's motivation**

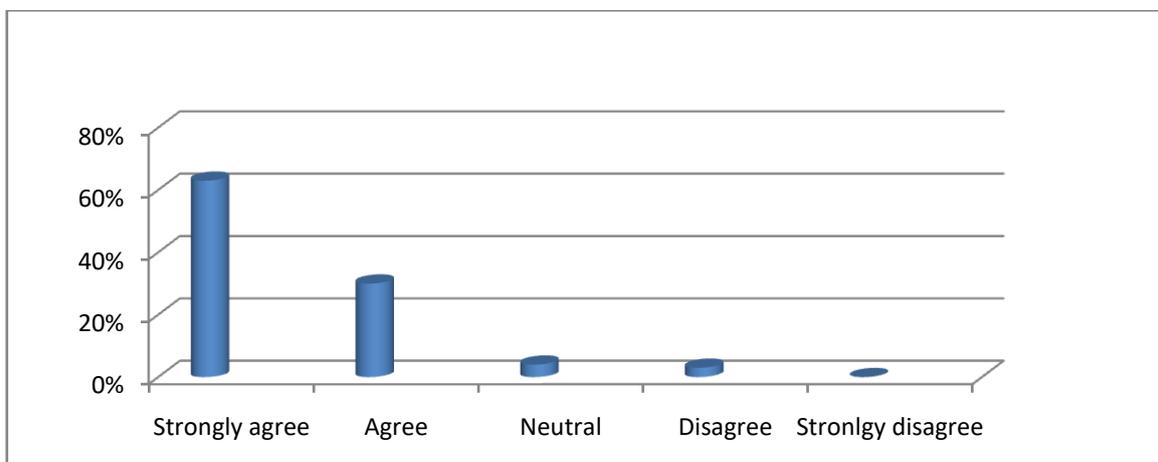


Figure 12: Raising the Learner's motivation

As shown in figure (12), 60% of the participants strongly agree that teaching other students motivate them more to interact with their courses. Moreover, 30% of them agree that presenting lessons raise their motivation to learn. 04% of the participants are neutral. However, only 03% of them disagree with what other students say.

- **Developing the Learner's self-confidence**

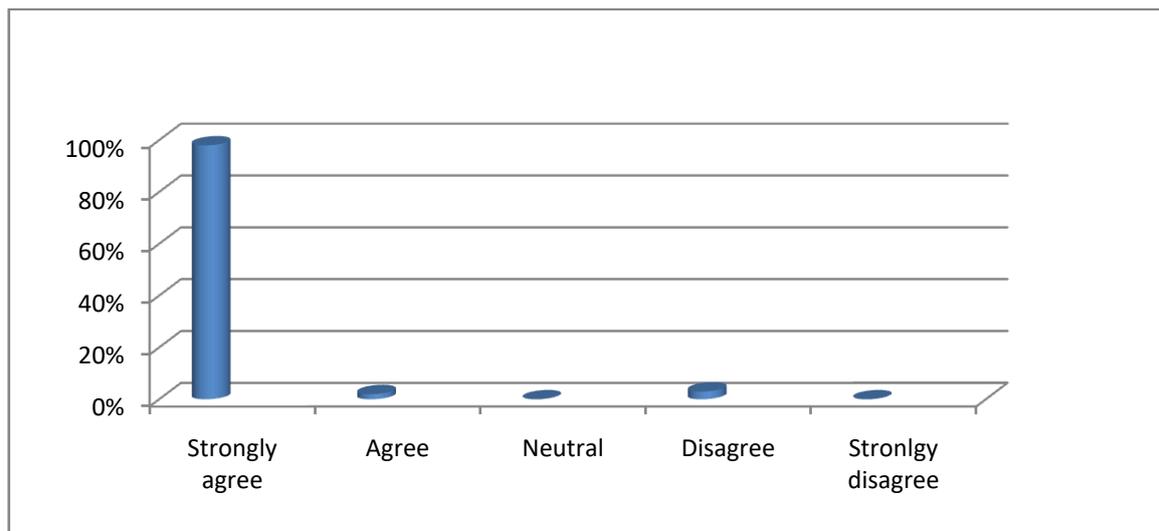


Figure 13: Developing the Learner's self confidence

Figure (13) reveals that (98%) of the students strongly agree that teaching other students develop their self confidence.

- **Sharing knowledge with other stu**

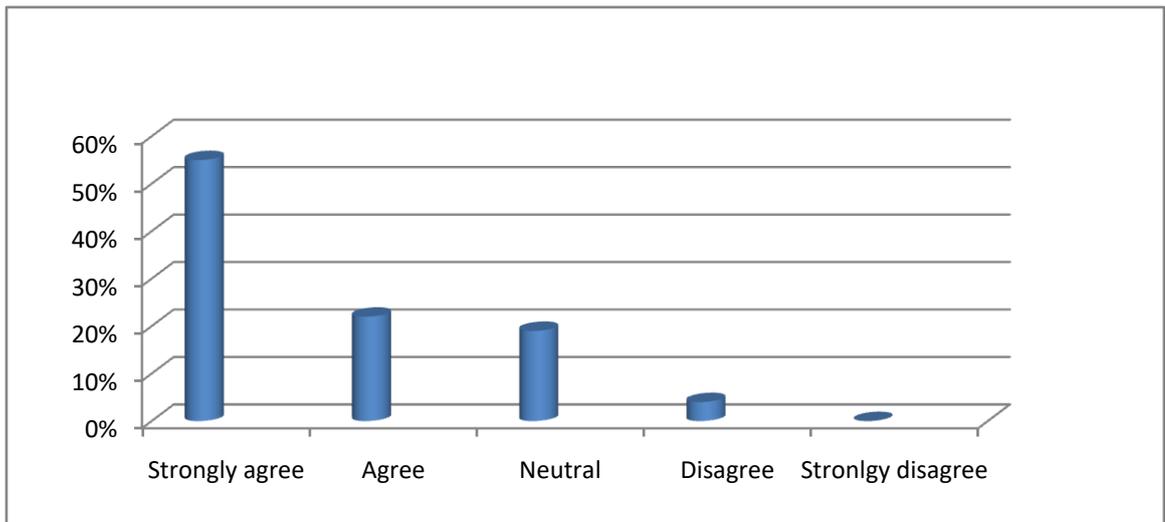


Figure 14 : Sharing knowledge with other students

The results shows that 55% of the students strongly agree that presenting lessons to other students gives them the opportunity to share their ideas and knowledg with other students. Likewise, 22% of them confirm that teaching othe students help them to exchange with these students what they have learned. 19% of the participants are neutral. Only 4% of them disagree with what other students say

b. The Effect on the Teaching Process

Table (9) : The effect of the the learning by teaching technique on the teaching process

Question	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. How to plan and design a lesson	09%	87%	03%	01%	00%
2. How to provide a coherent, illustrative presentation	12%	87%	01%	00%	00%
3. How to transmitt knowledge to students	98%	02%	00%	00%	00%

4. How to attract students' attention	23%	14%	27%	40%	00%
5. How to encourage student participation	52%	34%	10%	04%	00%
6. How to overcome some teaching problems	27%	38%	31%	04%	00%
7. How to engage in a teacher role	71%	25%	04%	00%	00%
8. How to send information using creative ways	92%	08%	00%	00%	00%

Table 9 shows that the learning by teaching technique allows the students to develop so many teaching competencies and skills. These competencies and skills are analyzed below.

- **Planning and designing a lesson**

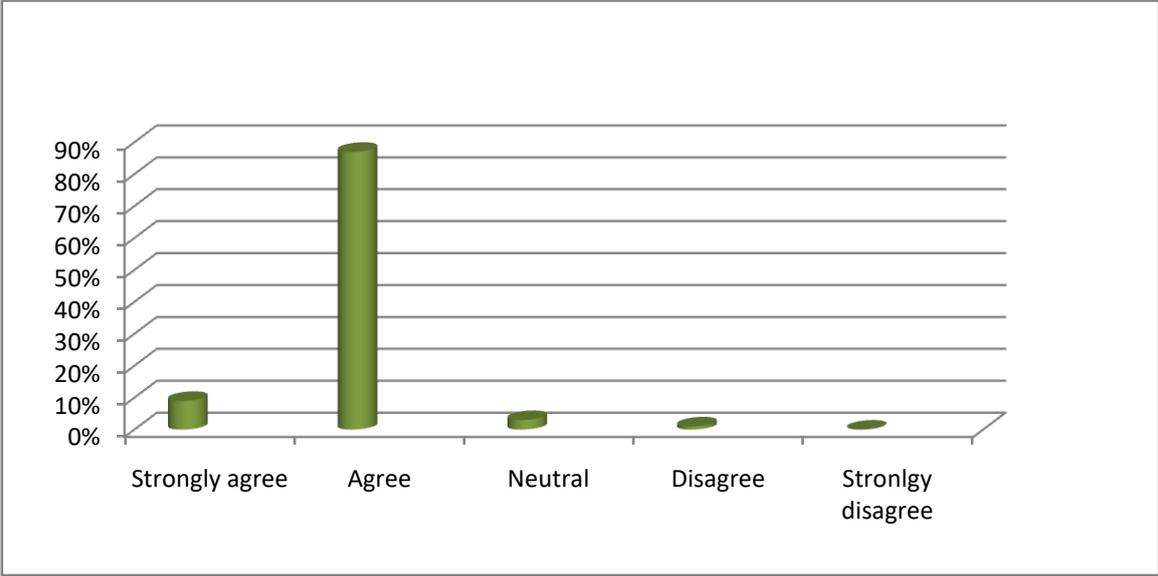


Figure 15: Learning how to plan and design a lesson

Figure (15) reveals that 87% of the participants agree that presenting lessons to other students help them to learn how to plan and design a lesson. 03% of these participants are neutral, however, only 1% of them disagree

- **Producing coherent and illustrative presentaiton**

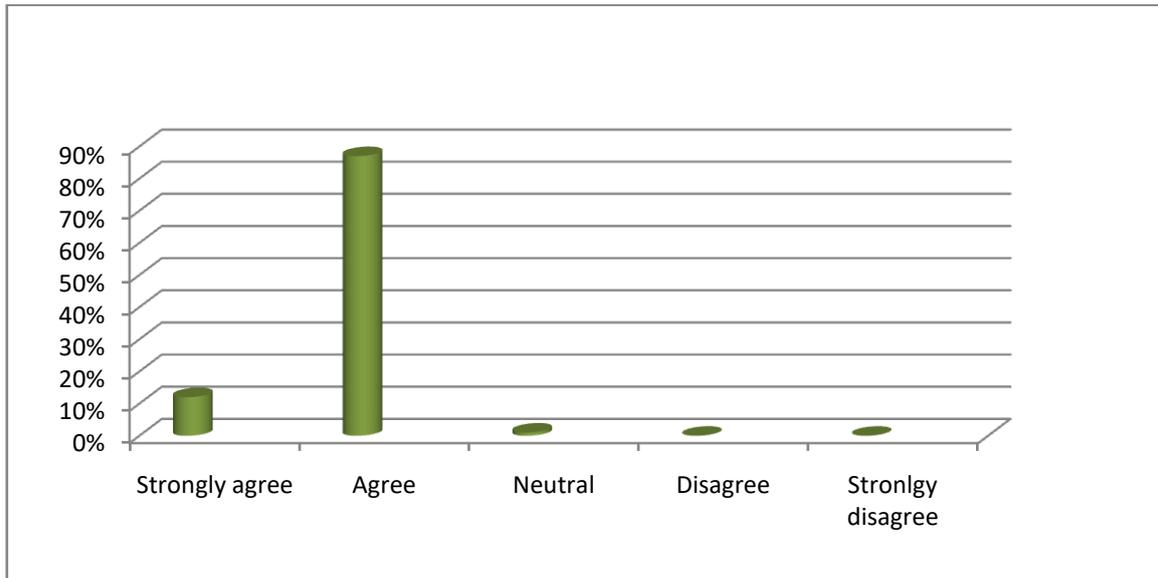


Figure 16: Learning how to producing coherent and illustrative presentaiton

As shown in figure (16), the majority of the students agree that giving lessons to other students help them to learn how to produce coherent and illustrative presentaiton.

- **Transmitting knwoledge to students**

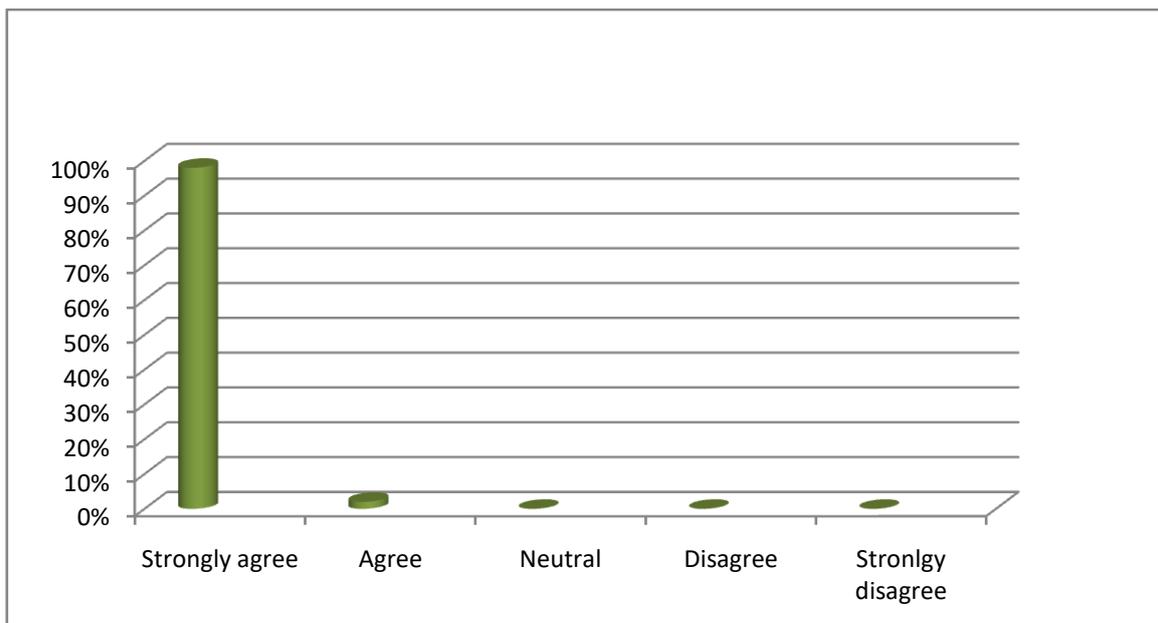


Figure 17: Learning how to transmitting knwoledge to students

It is clear from figure (17) above that most of the students (98%) strongly agree that teaching other students gives them the opportunity to learn how to transmit knowledge to the students.

- **Attracting the students' attention**

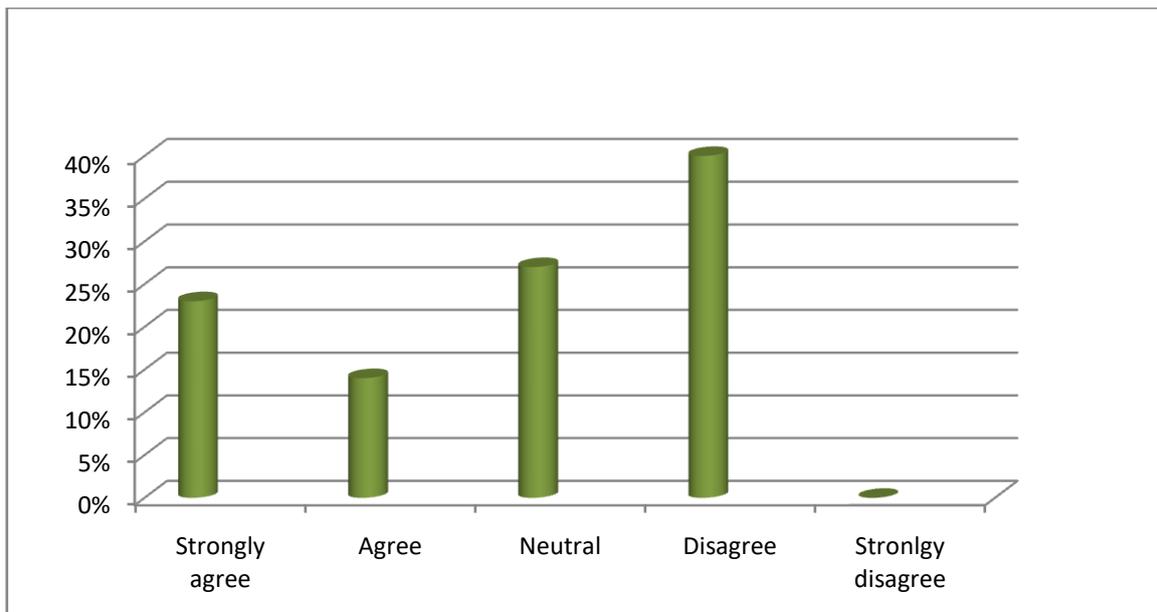


Figure 18 : Learning how to attract the students' attention

Figure (18) reveals that 40% of the students confirm that presenting lesson to other students do not help them to attract students' attention. 27% of them are neutral. However, 23% of these participants strongly agree that teaching other students help them to learn how to attract their attention.

- **Encouraging students to participate**

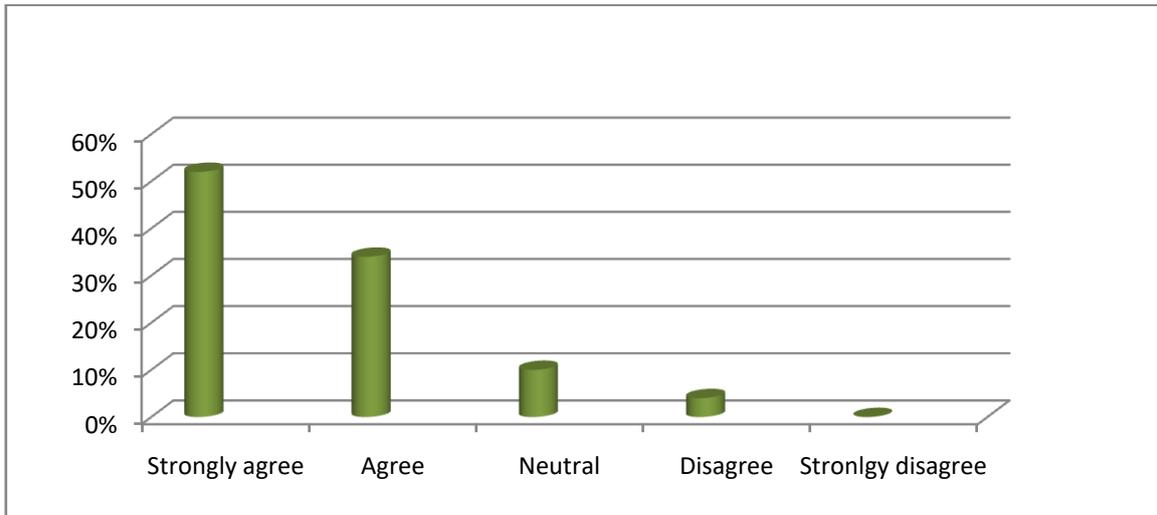


Figure 19: Learning how to encourage students to participate

The results show that 52% of the participants strongly agree that presenting lessons to other students help them to learn how to encourage students to participate and interact with the lessons. Moreover, 34% of them agree that teaching other students allows them to encourage the students' participation. 31% of the participants are neutral. However, only 4% disagree with what other students say.

- **Solving some teaching problems**

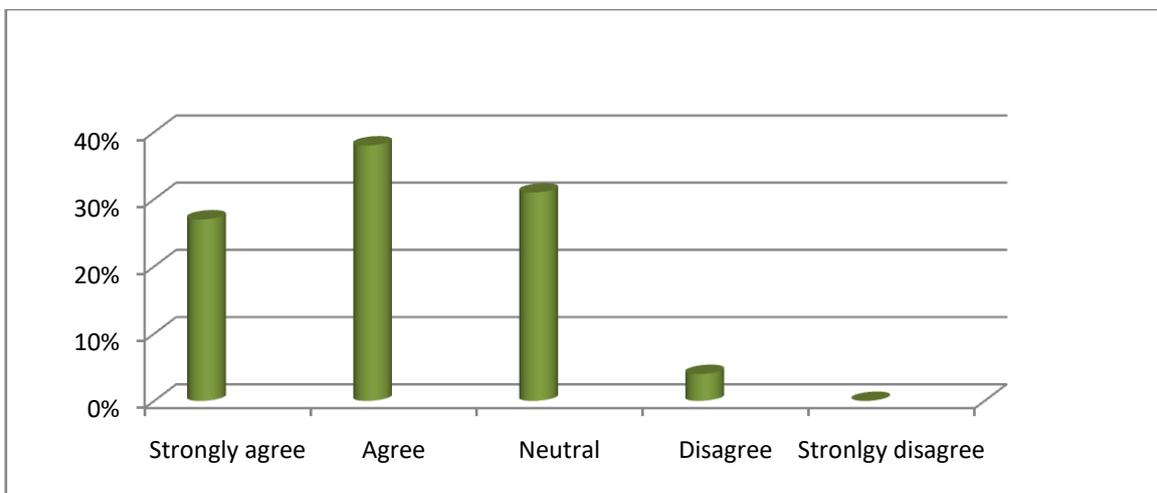


Figure 20 : Learning how to overcome some teaching problems

Figure (20) clearly indicates that 38% of the participants agree that presenting lessons to other students help them to learn how to solve some teaching problems. Moreover, 27% of them strongly agree that they learn from the learning by teaching technique how to overcome some teaching problems. 31% of the participants are neutral. However, 4% disagree with what other students say.

- **Engaging in a teacher role**

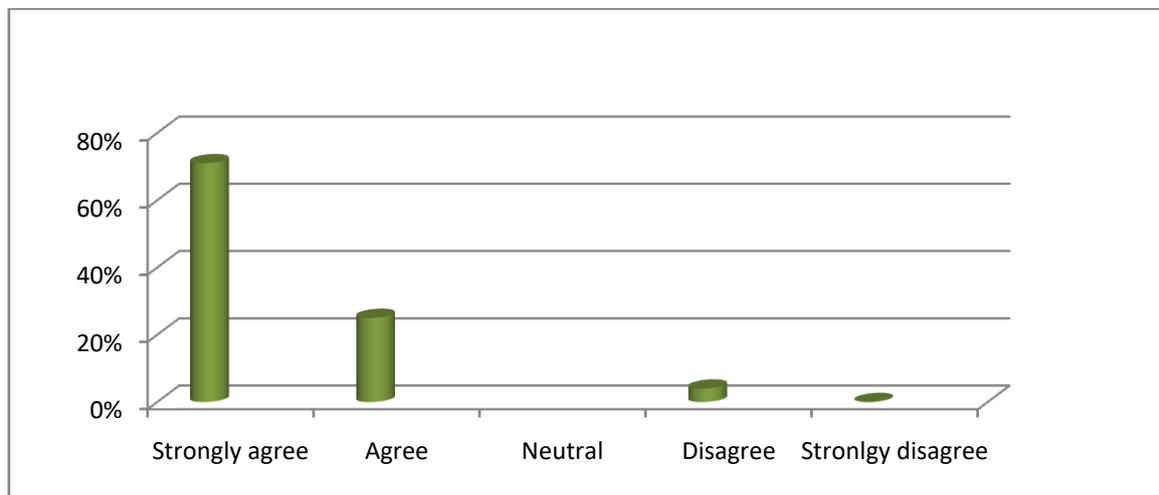


Figure 21: Learning how to engage in a teacher role

As shown in figure (21), the majority of the students confirm that presenting lesson to other students help them to learn how to engage in a teacher role. However, only 4% of them disagree.

- **Sending information in creative ways**

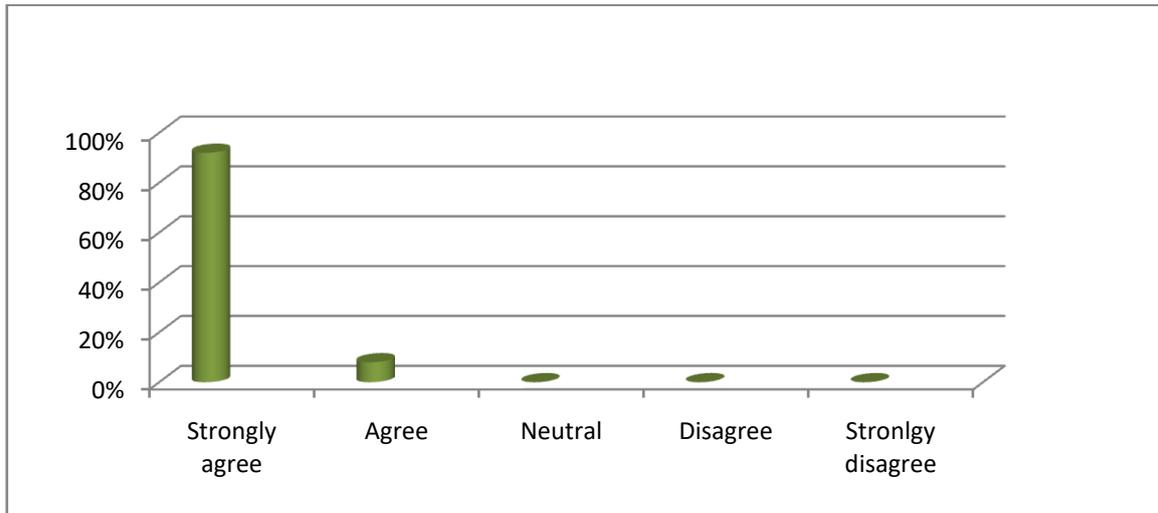


Figure 22: Learning how to send information in creative ways

The results reveal that the a majority of the students confirm that teaching other students give them the opportunity to learn how to send information in creative ways.

III. The Students' Attitudes Towards the Learning by Teaching Technique

Question 1: Do you like to present lesson (s) in the class?

Table 10: Percentage of the students who like to present lesson (s) in the class

Answers	Yes	No
Participants	81%	19%

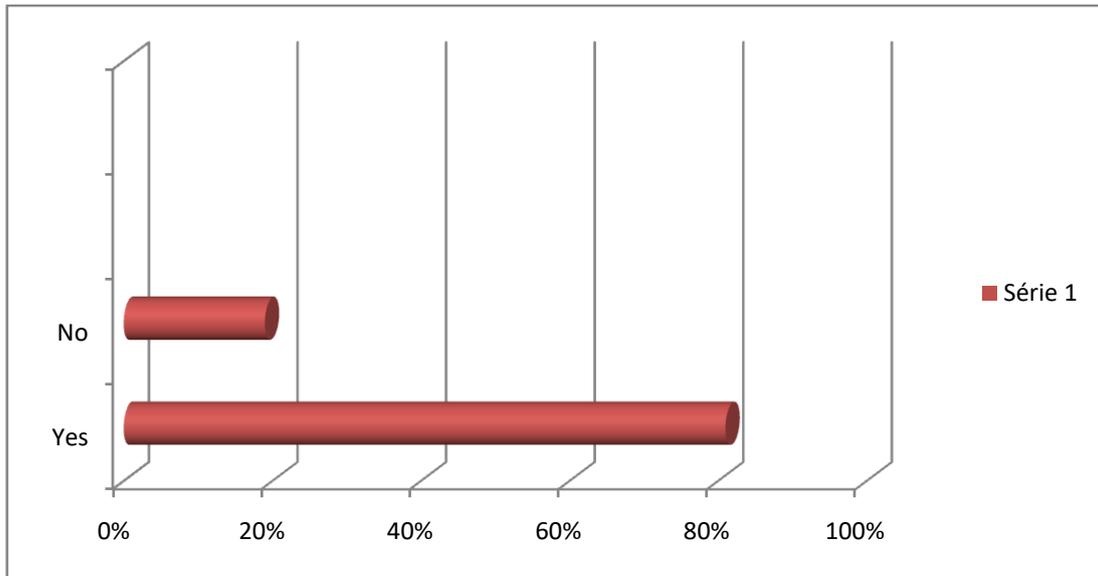


Figure 23: Percentage of the students who like to present lesson (s) in the class

Figure (23) shows that 81% of the participants like to teach other students in the classroom, However, 19% of them dislike to present lesson to their classmates inside the classroom.

Question 2: Do you like to explain lesson(s) to your classmates outside the class

Table 11: Percentage of the students who like to present lesson (s) outside the class

Answers	Yes	No
Participants	74%	26%

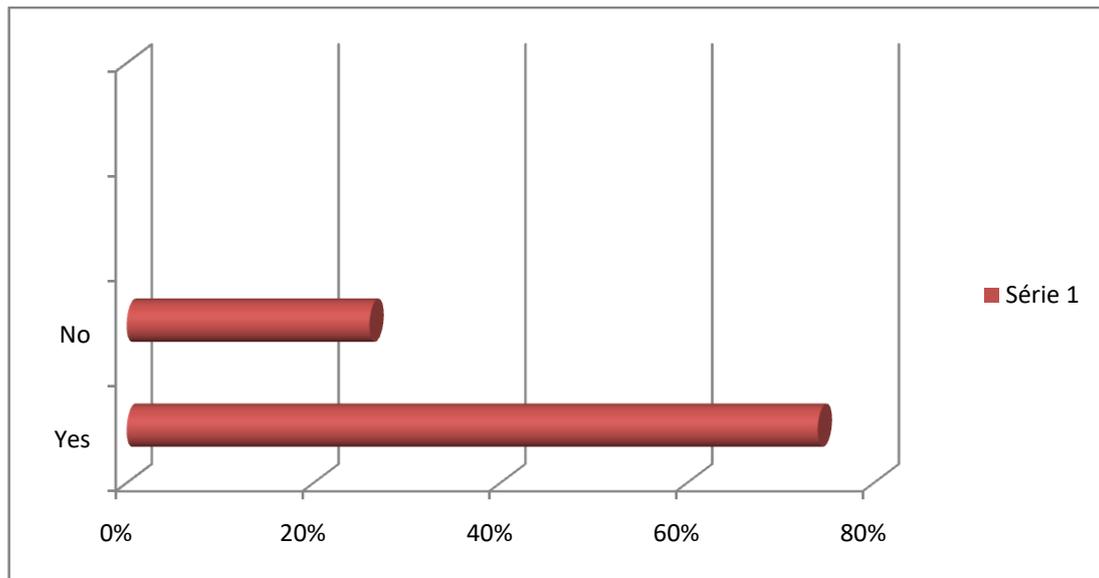


Figure 24: Percentage of the students who like to present lesson (s) outside the class

As shown in figure (24), 74% of the participants like to teach other students outside the classroom. However, 26% of them dislike to present lessons to their classmates outside the classroom.

Question 3: Do you use this technique to increase your learning gains?

Table 12: Frequency of using the learning by teaching technique to increase the learning gains

Answers	Always	often	sometimes	never
Participants	73%	18%	09%	0%

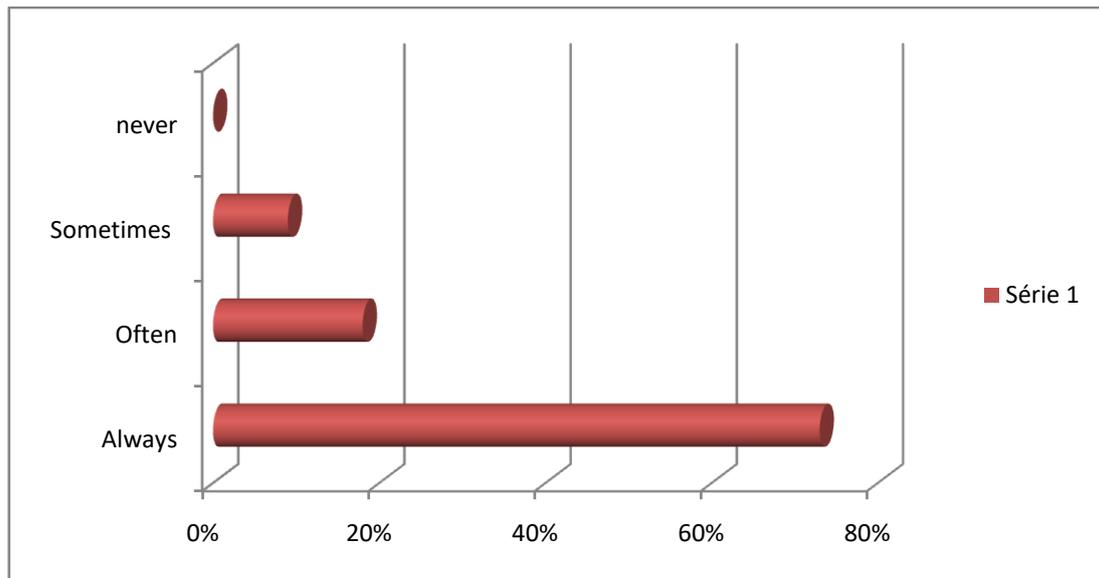


Figure 25: Frequency of using the learning by teaching technique to increase the learning gains

The results indicate that 73% of the students always use the learning by teaching technique to enhance their learning. 18% often use this technique to increase their learning gains. Only 9% sometimes apply this technique.

Question 4: Do you feel excited when you engage in a teacher role?

Table 13: Frequency of feeling excited when engaging in a teacher role

Answers	Always	often	sometimes	never
Participants	84%	10%	06%	0%

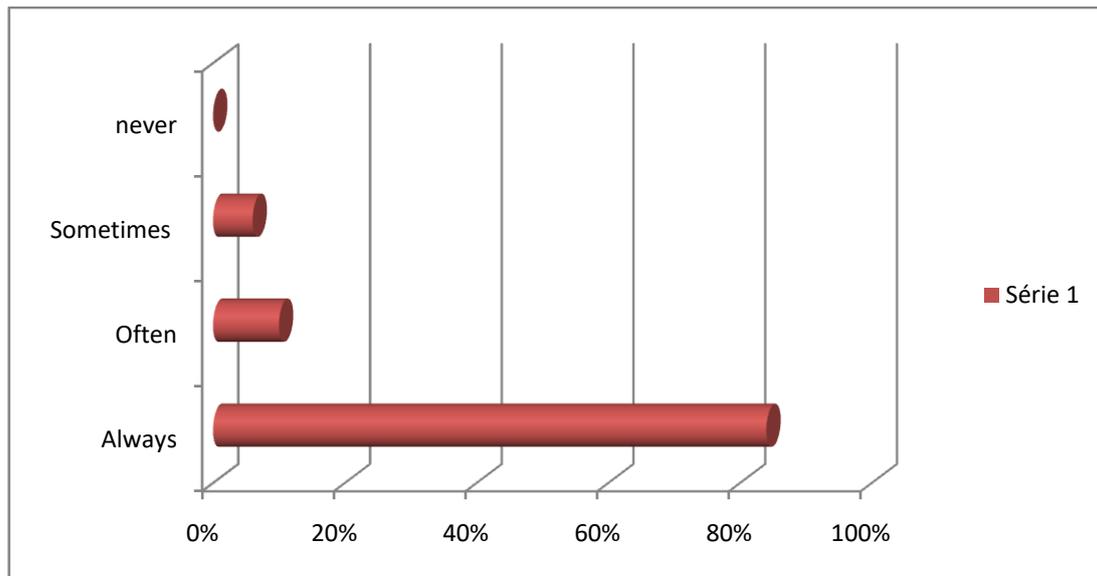


Figure 26: : Frequency of feeling excited when engaging in a teacher role

As figure 26 reveals, the majority of the students (84%) always feel excited when they engage in a teacher role. 10% often feel excited, and only 6% of them sometimes feel excited.

Question 5: If you feel excited when you engage in a teacher role, can you explain why?

The participants feel excited when they engage in a teacher role because they like to help other students and exchange with them ideas and knowledge. Moreover, they find teaching their classmates as a great experience.

Question 6: If you feel excited when you engage in a teacher role, can you explain why?

The participants do not feel excited when they engage in a teacher role because they hate teaching and do not feel at ease in front of other students.

3.2.2. Analysis of the Interview

The data gathered from the teachers are descriptively analyzed

Question 1: As a teacher, have you ever ask the master students to give presentations in the class?

All the teachers say that they have asked the master students to give presentations in the classrooms

Question 2: If yes, how often do you use this method?

Two teachers say that they sometimes ask the master students to give presentations in the class. However, one teacher says that he rarely relies on this method.

Questions 3: Do you think that this method helps the students to acquire some competencies and skills that help them in their process of learning

The three teachers argue that the presenting lessons to other students in the classroom help the students to develop some competencies and skills that facilitate their learning.

Question 4: Can you mention some of these competencies and skills

The teachers mention the following strategies:

- Understanding more the lessons
- Raising their motivation to learn
- Interacting more with the students
- Exchanging ideas

Question 5: Do you think that this method helps the students to acquire some skills that help them in the future as teachers?

The three teachers argue that the presenting lessons to other students in the classroom help the students to develop some competencies and skills that help them in the future as teachers.

Question 6: Can you mention some of these competencies and skills

The teachers mention the following skills:

- Planning a lesson
- Transferring information to other students
- Presenting a lesson using attractive ways
- Answering the students' questions

Question 7: Do you think that the students like to give presentation to their classmates in the classroom.

Two teachers say that the most of the students do not like to give presentations in the classrooms. One teacher says that some students like this methods, while others feel uncomfortable when presenting lessons in front of their classmates.

3.3. Discussion of the Findings

It seems that the results presented and described above validate what have been hypothesized earlier regarding the use of the learning by teaching technique, the effects of this technique and the students' attitudes towards this technique. The results reveal that the majority of EFL master students are familiar with the learning by teaching technique. When they engage in interactive teaching, EFL master students use 'learning by replacing a teacher' strategy and peer tutoring strategy. The results demonstrate that EFL master students have presented at least one lesson during their learning process in the following modules: grammar, oral expression, literature, and language planning. The presentation of the lessons have occurred both in and outside classrooms. Moreover, the findings suggest that the use of the

learning by teaching technique allow the students to develop so many skills that help them in their learning process and may help them in the futur as teachers.

Regarding the effect of the learning by teaching technique on the students' learning process, the results confirm that the student who have presented lessons to their classmates achieve a deep understanding of the topics they presented, interact more with their classmates, develop their communication, IT, and presentation skills, increase their motivation to learn, develop their self confidence, and exchange with their classmates ideas, knowledge and information. All these skills help the students to interact more with their courses and improve their learning.

Moreover, the findings indicate that the learning by teaching technique gives the students the opportunity to engage in teacher role and acquire so many skills that last for a long time and help them as future teachers. It seems that the students who present lessons to their classmates learn how to plan and design a lesson, how to create alignment between the different sections of the lessons, how to transfer information to the students using creative and attractive ways, how motivate the students to engage and interact with the lessons, and how to answer the students 'questions.

In addition to the use of the learning by teaching technique and its effect, the results show that most of the EFL master students like to give lessons to other students both inside and outside classrooms. For them, teaching others is a great experience. It seems that these students feel excited to engage in a teach role.

3.4. Conclusion

The present chapter presents the practical part of the research. It presents, describes, analyzes, and discusses the data obtained from the questionnaire and the interview in order to

find answers to the research questions. The chapter shows clearly that the EFL master students are familiar with the learning by teaching technique which allows them to develop so many learning and pedagogical skills.

General Conclusion

The present study focuses on exploring the effects of learning by teaching. It seeks to determine whether EFL master students have used the learning by teaching technique during their academic journey, the effects of this technique on both the learning and the teaching processes, and the attitudes that students have towards this technique.

To conduct this study, three chapters are designed. Chapter one is devoted to the literature review. It gives an overview about the learning by teaching technique. Chapter two is dedicated to explain the research protocol followed to collect the data. Two main research tools were used to gather data: Questionnaire and interview. The first research tool was used with EFL master students at Ibn khaldoun University; while the second research tool was used with EFL teachers. Chapter three is practical. It presents, analyzes, and discusses the results obtained from the questionnaire and the interview.

It seems that the results presented and described above validate what have been hypothesized earlier. The results reveal that the majority of EFL master students are familiar with the learning by teaching technique.

Regarding the effect of the learning by teaching technique on the students' learning and teaching skills, the results confirm that the student who have presented lessons to their classmates develop several skills that help them to improve their learning process. The students also acquire some teaching competencies that may help them as future teachers. Besides, the results show that most of the EFL master students feel excited when they engage in a teacher role.

Limitations of the Study

The present study has a number of limitations:

- The number of the participants is not sufficient. This prevents us from generalizing the results to all Algerian university students.
- Because of the protocol of teaching during the pandemic of COVID 19 , it was difficult to conduct an interview with EFL teachers.
- Because of the time constraints, some studies neither were not reported in the literature review.

Recommendations for Further Studies

The following recommendations for future research:

- Further studies are recommended to examine the effectiveness of learning by teaching taking into consideration university students from different level.
- Future studies are need to examine the the influence of learning by teaching on teachers.
- Researchers are invited to compare between the learning outcomes of the students who prepare materials to teach without engaging in interactive teaching and the learning gains of students who prepare materials and engage in interactive teaching.

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Appendices

Appendix 1

Questionnaire to EFL master students at Ibn-Khaldoun University

The questionnaire attempts to investigate the extent to which EFL master students at Ibn Khaldoun University use the learning by teaching technique. Students who use this technique are expected to comprehend the material and then prepare presentations to teach their classmates. You are kindly requested to answer the questions below. Your contribution is highly appreciated.

General information

Gender : Male Female

Specialty : Linguistics Didactics

Section 1 : The use of learning by teaching technique

1. Have you ever presented a lesson in the class ?

Yes No

2. If yes, how many times ?

Once Twice More than twice

3. Mention the module (s) in which you have presented the lesson (s)

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4. Have you presented the lesson (s) by yourself or with your teammate (s) ?

By Yourself With your teammate(s)

5. Have you ever taught a lesson to your classmates outside the class ?

Yes No

6. If yes, how many times ?

Once Twice More than twice

Section 2 : The effects of the learning by teaching technique

1. Presenting a lesson to your classmates helps you to :

Options	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Achieve a deep understanding of the topic					
2. Interact more with your classmates					
3. Develop your communication skills					
4. Develop your IT skills					
5. Develop your presentation skills					
6. Raise your motivation about learning					
7. Develop your self-confidence					
8. Share what you have learned with your classmates					

2. Presenting a lesson to your classmates allows you to learn :

Question	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. How to plan and design a lesson					
2. How to provide a coherent, illustrative presentation					
3. How to transmitt knowledge to students					
4. How to attract students' attention					
5. How to encourage student participation					
6. How to overcome some teaching probelms					
7. How to engage in a teacher role					
8. How to send information using creative ways					

Section 3: Students' attitude towards the learning by teaching technique

1. Do you like to present lesson (s) in the class?

Yes

No

2. Do you like to explain lesson(s) to your classmates outside the class

Yes

No

3. Do you use this technique to increase your learning gains

Always

Sometimes

Often

Never

4. Do you feel excited when you engage in a teacher role

Always

Sometimes

Often

Never

5. If you feel excited when you engage in a teacher role, can you explain why

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6. If you do not feel excited to engage in a teacher role, can you explain why

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Appendix II

Interview with EFL teachers

1. As a teacher, have you ever ask the master students to give presentations in the class?

Yes No

2. If yes, how often do you use this method?

Always Sometimes Often rarely Never

3. Do you think that this method helps the students to acquire some competencies and skills that help them in their process of learning?

Yes No

4. Can you mention some of these competencies and skills

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5. Do you think that this method helps the students to acquire some competencies and skills that help them in the future as teachers?

Yes No

6. Can you mention some of these competencies and skills

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7. Do you think that the students like to give presentation to their classmates in the classroom.

Yes

No

Résumé

Le but de la présente étude est d'examiner l'effet de l'apprentissage par la technique d'enseignement. L'étude en cours cherche à déterminer si les étudiants en master EFL ont utilisé cette technique au cours de leur parcours académique, le rôle de cette technique dans le développement de certaines compétences d'apprentissage et d'enseignement, et les attitudes des étudiants en master EFL envers cette technique. Pour collecter les données, un questionnaire a été distribué à un échantillon de 100 étudiants en master EFL. Par ailleurs, un entretien a été réalisé avec trois enseignants EFL. Les résultats ont révélé que la majorité des étudiants en master EFL sont familiarisés avec la technique d'apprentissage par l'enseignement. De plus, les résultats ont également montré que l'utilisation de la technique d'apprentissage par l'enseignement permet aux étudiants de développer de nombreuses compétences qui les aident dans leur processus d'apprentissage et peuvent les aider à l'avenir en tant qu'enseignants. En plus de l'utilisation de la technique d'apprentissage par l'enseignement et de ses effets, les résultats ont indiqué que la plupart des étudiants en master EFL aiment donner des cours à d'autres étudiants à la fois à l'intérieur et à l'extérieur des salles de classe.

Mots-clés: Méthode d'apprentissage par l'enseignement, préparation à l'enseignement, efficacité pédagogique interactive de l'apprentissage par l'enseignement, compétences d'apprentissage et d'enseignement.

المخلص

الهدف من هذه الدراسة هو فحص فعالية التعلم من خلال تقنية التدريس. وبشكل أكثر تحديداً ، تسعى الدراسة في متناول اليد إلى تحديد ما إذا كان طلاب ماستر اللغة الإنجليزية كلغة أجنبية قد استخدموا هذه التقنية خلال رحلتهم الأكاديمية ، ودور هذه التقنية في تطوير بعض مهارات التعلم وكفاءات التدريس ، والمواقف التي لدى طلاب اللغة الإنجليزية كلغة أجنبية تجاه هذه التقنية. لجمع البيانات ، تم توزيع استبيان على عينة من 100 طالب ماستر في اللغة الإنجليزية كلغة أجنبية. علاوة على

ذلك ، أجريت مقابلة مع ثلاثة مدرسين للغة الإنجليزية كلغة أجنبية. أظهرت النتائج أن غالبية طلاب ماستر اللغة الإنجليزية كلغة أجنبية على دراية بالتعلم من خلال أسلوب التدريس. علاوة على ذلك ، أظهرت النتائج أيضًا أن استخدام التعلم من خلال أسلوب التدريس يسمح للطلاب بتطوير العديد من المهارات التي تساعدهم في عملية التعلم الخاصة بهم وقد تساعدهم في المستقبل كمعلمين. بالإضافة إلى استخدام التعلم من خلال أسلوب التدريس وتأثيراته، أشارت النتائج إلى أن معظم طلاب ماستر اللغة الإنجليزية كلغة أجنبية يرغبون في إعطاء دروس للطلاب الآخرين داخل وخارج الفصول الدراسية.

الكلمات المفتاحية: طريقة التعلم بالتدريس ، التحضير للتدريس ، فعالية التدريس التفاعلي للتعلم من خلال مهارات التدريس والتعلم والتدريس