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جامعة مولود تيزي وزو

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Title:

**An Analysis of Teachers 'Views about the Implementation of Inquiry Based Learning
in FEL Classes**

The Case of the Department of English at MMUTO

Presented by:

Ms. DEBBAL Kenza

Ms. DJATIT Selma

Supervised by:

Mr HAMMOU Mohamed

Mr HAMI Hamid

Examined by:

Chair: Ms AMMOUR Kamila,

MAA, Mouloud Mammeri University of Tizi-Ouzou

Supervisor: Mr HAMMOU Mohamed,

MAA, Mouloud Mammeri University of Tizi-Ouzou

Co-supervisor: Mr HAMI Hamid,

MAA, Mouloud Mammeri University of Tizi-Ouzou

Examiner: Mr. Aouine Akli,

MAA, Mouloud Mammeri University of Tizi-Ouzou

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Dedication

To my parents and my brothers amine and Ahmed Zakaria.

To my sisters Ismahane and Widad.

To all my friends and relatives.

KENZA

To my parents and brothers

To my husband Yacine

Selma

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Abstract

The current study aims at investigating the teachers views towards the implementation of inquiry based learning in the English department at MMUTO to promote students' skills. Our research is based on the constructivist learning theory developed by Lev Vygotsky, which is a support for this new approach where learners construct their own understandings and knowledge through experiencing the real world, asking questions, and reflecting on real life experiences. In this study, the mixed methods approach is adopted. Both quantitative and qualitative methods are used for the collection and the analysis of the data. In order to obtain the needed information, a questionnaire which is used as a research tool was delivered to the teachers of the English department and in order to interpret the data, quantitative and qualitative content analysis were used to analyse their different views and attitudes towards the Implementation of IBL approach. According to the findings of this study, the majority of teachers of the department of English support the use of IBL strategies to enhance learning and to improve life skills such as critical thinking, creative thinking and problem solving. It is also noticed from the results that teachers confirm the use and the importance of the steps of the inquiry model suggested by the constructivist learning theory in TEFL.

Key Words: Constructivist learning theory, creative thinking, critical thinking, Inquiry-based learning, problem solving, student-centered learning.

List of Abbreviations

CT: Critical Thinking

EFL: English Foreign Language

IBL: Inquiry-Based Learning

MMUTO: Mouloud Mammeri University of Tizi Ouzou

PBL: Problem-Based Learning

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General Introduction

1. Statement of the problem

Inquiry-based learning (IBL) is an approach adopted by teachers who aim at making their learners gain knowledge and understand notions and concepts through asking questions, experiencing and analyzing facts. This approach focuses on using the student's critical thinking skills in the classroom. It is a learning process that engages students by making real-world connections through exploration and high-level questioning. Most importantly, it encourages students to engage in problem-solving situations and experiential learning.

Inquiry-based learning can come as an alternative to the traditional teaching approaches and methods, which are mostly based on the instruction of knowledge, and which consider the learner as an empty vessel waiting to be filled with information. In the traditional EFL classroom, the teacher is the only source of knowledge, and the students are supposed to listen and memorize concepts. On the contrary, in the inquiry-based approach, things are done differently, since the learners are given the opportunity to question facts and concepts, observe, experience, use their critical thinking skills, and try to find solutions. Inquiry-based learning is based on deep analysis and asking questions so that the student may search and try to discover and find solutions.

In sum, much like the collaborative learning approach, the goal of inquiry-based learning is to create a community of learners in which students learn from one another. It also aims at engaging them in their own learning process.

The IBL approach is basically student-centered since it urges them to make real life connections, to be creative and to enrich their communicative skills. Researchers like Mäeots, Pedaste & Sarapuu (2008) agree that inquiry-based learning helps in improving

various inquiry skills, such as identifying problems, formulating questions, setting hypotheses, planning and carrying out experiments, collecting and analyzing data, presenting the results, and drawing conclusions. In order to implement inquiry-based learning successfully in EFL classes, teachers must be aware of this approach and follow a model that would help them implement it as faithfully as possible in the classroom.

According to the principles of the constructivist learning theory, inquiry-based learning is crucial for creating excitement in students and enthusiasm in teachers. It raises students' awareness that they should be responsible for their learning process. However, this type of approach requires the development of independent learning skills through teachers' appropriate techniques and strategies. Students should, for example, have developed the information-processing skills needed for working with minimal assistance or without guidance at all. Additionally, this theory also suggests that teaching through "inquiry" involves engaging students in the research process with teachers acting as 'coaches' but not as 'professors', 'sellers', or 'entertainers'. Students should learn discipline-specific content, such as "Literary Studies", "Cultural Studies" and "Sociolinguistics" while at the same time engaging and refining their inquiry skills.

Teachers of scientific subjects, such as Biology, Chemistry, etc. are often most comfortable with IBL, as inquiry is a key component of the scientific method. Educators in other disciplines, however, may struggle to see how it applies to what they teach and how they can use inquiry-based learning in their classrooms. In this study, we will argue that there is a place for this type of learning in TEFL, but it needs to be supported with appropriate teacher training, appropriate curricula and syllabuses likely to prepare students at early stages of the course they are following.

2. Aims and significance of the study

The implementation of a newer approach as inquiry based learning requires some changes in the education system in order to introduce it to both teachers and learners. That is why teacher training and professional development are so necessary not only to inquiry-based learning as a teaching strategy but also to student success, as research has shown that support for teachers and educator attitudes towards inquiry-based learning are important for student outcomes. In this respect, the major objective of this study is to identify teachers' attitudes towards the implementation of inquiry-based learning in the Department of English at MMUTO.

This study may clarify some facts in relation to critical thinking, problem solving and independent learning. It may also contribute to the development of teaching/learning methodology in TEFL contexts, in general, and in the Department of English of MMUTO, in particular. The investigation of inquiry based learning is vital not just to analyse the teacher's attitudes towards this approach and its use, but also to highlight the principles of social constructivism and its relation to IBL. All in all, the present study suggests a shift from the traditional learning methods which follow the main principles of instructivism to a newer approach of learning which is inquiry-based learning suggested by constructive learning theory.

3. Research questions and hypotheses

Since every research work starts with questioning, as suggested by the inquiry-based learning approach itself, the present study attempts to investigate teachers' attitudes towards IBL and their practices by addressing the following questions:

- What are teachers' attitudes towards inquiry-based learning?
- If teachers are 'resistant' to this approach, what is their argument?

- What are the teachers' views about the implementation of inquiry based learning in EFL classes.

In an attempt to answer these questions, we advance the following hypothesis:

- Supposing that their learners are reluctant and poorly equipped to engage in inquiry and problem-solving, teachers avoid adopting the inquiry-based learning approach and resort to information delivery.
- Teachers rely on inquiry-based methodology but they find some obstacles in its implementation.
- Teachers find it difficult and time-consuming to adopt IBL in large classes.

These hypotheses are grounded in our assumption that elements of IBL are omnipresent in classroom practice, though not explicitly, but in a very limited way. The point is that, the lack of inquiry in the classroom is likely to have a significant lifelong impact on EFL learners.

4. Research design and methodology

In order to account for the issue raised above, most of our analytic categories are borrowed from the constructivist and social constructivist theories of learning developed respectively by Jean Piaget and Lev Semionovitch Vygotski. They offer a framework which allows an investigation of inquiry-based learning as a teacher/learner and, most importantly, learner/learner interactive process. They also suggest that methodologists should turn their attention not just to teaching but also to training students how to be good learners through inquiry and problem solving.

As for the sake of gathering the appropriate data needed to explore teachers' attitudes, we have relied on a quantitative method of analysis to quantify the data collected and the qualitative method in order to understand deeply the informants' experiences and analyze

and interpret the findings. In order to account for the informants' attitudes, a questionnaire (see Appendix) is designed and distributed to 25 teachers who work in the Department of English at MMUTO. The questionnaire is a research tool which is likely to help us gather as much information as possible about teachers' opinions and, most importantly, their representations of IBL.

5. Structure of the dissertation

In addition to a general introduction, the present dissertation comprises four chapters. The first chapter, entitled 'Review of the Related Literature', is devoted to the various definitions of IBL and its benefits. It also includes an overview of the constructivist theory, whose insights are used as a theoretical framework for our analytic categories. As for the second chapter, it is concerned with the 'research design and methodology' that we have adopted. The third chapter displays the findings of the research work, which are to be discussed in the fourth chapter labelled 'Discussion'. The latter is concerned with the interpretation of the findings of the study as well as the discussion of the results in relation to previous research and the hypotheses set in the introductory section. The 'General Conclusion' includes some suggestions for further research and better practice, since "all progress is born of inquiry, and inquiry leads to invention" (Hudson Maxim).

An appendix is included at the end of the dissertation for easy reference.

Chapter I: Review of the Related Literature

Introduction

This chapter reviews the different related works and the main theoretical framework on which the present study relies in order to investigate the implementation of the inquiry-based learning approach in EFL classes. It is divided into three main sections. The first one deals with the definition of IBL from different perspectives. It also presents one of the different structured ways for its implementation. The section ends with the benefits and effectiveness of the approach in education, in general, and in EFL classes, in particular. The second section provides some background information about the constructivist learning theory, as IBL is closely related to it. As for the third section, it consists of a substantial overview of the theoretical framework of the present research work.

1. Defining Inquiry-Based Learning

Inquiry-based learning has received substantial attention of different scholars leading to considerable insights. This approach cannot be defined easily. In its simplest definition, inquiry based-learning is a process that fosters the development of independent students to take responsibility for their own learning (Smallhorn, 2015) Yet, we find it of paramount importance to have a look at a detailed definition of the concept with its various facets and its different uses in educational and academic contexts.

1.1 Definition

Inquiry is a term used both in education and in daily life to refer to seeking explanations or information by asking questions (Harlen, 2013). Inquiry-based learning is an instructional practice where students are at the center of the learning

experience and take ownership of their learning by posing, investigating and answering questions (Caswell & Labrie, 2017).

It is also considered as a form of discovery learning that is also known as “guided inquiry”. According to Lin (2007, p.12). IBL refers to learning and teaching methods which begin with questions to be solved; this means that at the beginning of the lecture, learners are asked to perform some activities in order to find the rules then communicate the conclusion. An old native Chinese saying states: “tell me and I will forget, show me and I will remember, involve me and I will understand”. In other words, it is of great importance to actively involve the learners in the learning process. It can be considered as a student-centered approach that emphasizes higher order thinking skills, where they develop a sense of curiosity about the world around them. According to Spronken S. & Walker (2010), inquiry-based learning is considered as a form of self-directed learning where students take responsibility for their learning.

According to the National Academy Press (2000), inquiry is a multifaceted activity that involves making observations, posing questions, examining books and other sources of information to see what is already known; planning investigations, using tools to gather, analyze and interpret data, proposing answers, explanations and predictions, and communicating the results. For example: classroom debates, team work, projects where students can share and communicate their different visions and opinions, also using their critical thinking skills to find answers and solutions. Furthermore, Smith (2010) has defined inquiry-based learning as a pedagogy which best enables students to experience the process of knowledge creation and the key attributes are learning stimulated by inquiry, a student-centered approach, a move to self-directed learning, and an active approach to learning.

Scholars like Prince and Felder (2006) provided an excellent review in which inquiry-based learning falls under the realm of “inductive” approaches to teaching and learning where it begins with a set of observations or data to interpret, or a complex real-world problem. State that inductive teaching encompasses a range of teaching methods including “inquiry learning”, problem-based learning (PBL), project-based learning, case-based teaching and discovery learning (Ibid: 123). They classified the teaching methods by considering the context for learning and other features, such as the amount of student responsibility for their learning and the use of group works.

In addition, Maxwell, Lambeth and Cox (2015) claim that IBL is seen as a system of learning that supports the development of students’ problem solving and critical skills. Other researchers as Saunders-Stewart and Shore (2012) consider the many forms of IBL and mention that it includes analysis, problem solving, discovery and creative thinking. This means that the approach of inquiry based learning does not only help in enhancing students critical thinking skills and problem solving but it also pushes the students to be creative and explore the world around them even in their daily life since inquiry is based on new experiences and risk taking. Guido (2017) examines inquiry from both a student and a teacher’s point of view. He explains that from a student’s perspective IBL focuses on investigating an open question or problem, while from a teacher’s perspective, inquiry-based teaching focuses on moving students beyond basic curiosity into the realms of critical thinking and understanding.

1.2 Levels of Inquiry-Based Learning

Inquiry-based learning can be implemented at different levels. Mackenzie (2016) explores the difference between four types of inquiry: structured, controlled,

guided and free inquiry. He further explains that teachers usually begin the year in a structured inquiry model, move to controlled inquiry, then guided inquiry, and if all goes well, they conclude the year with free inquiry. The following is a brief summary of Mackenzie's four types of students' inquiry.

1.2.1 Structured Inquiry

Students follow the lead of the teacher as the entire class engages on one inquiry together. It indicates a method of structured inquiry where students are given a research question and a method in which they are only independently responsible for interpreting the findings.

1.2.2. Controlled Inquiry

The teacher chooses topics and identifies the resources students will use to answer the questions.

1.2.3 Guided Inquiry

The teacher chooses topics and questions, while the students design the product or solution. In other words, students are responsible for determining the method of investigation and interpreting the findings.

1.2.4 Open Inquiry

The students choose their topics without reference to any proscribed outcome, which means that students have more freedom to generate the question, determine the method, and interpret the findings.

Marshall (2013) has previously explored the continuum of Inquiry and he has referred to the following terms to describe the four types of inquiry; teacher as teller, perspective inquiry, guided inquiry, and open inquiry.

He contends that students engage in perspective inquiry are usually doing little to no critical thinking and that is the reason why it should be the exception. On the contrary, “when instruction includes effective guided inquiry, learning is rich and challenging to students of all ability levels” (Marshall, 2013, p. 17).

This is similar to Engeln, Euler and Mass’s (2013) description, who state that in structured inquiry activities, the students are given a problem to solve and the necessary materials, resources and tips to build the procedure to follow for solving the problem. In open inquiry, on the contrary, the students are required to formulate the problem they are investigating.

1.3 Benefits of Inquiry-Based Learning

Inquiry-based learning is an instructional strategy that brings teaching and learning into alignment with the students and the skills developed for future success (Mark, 2013).

According to Sockalingan, Rotgans, and Schmidt (2011), when students are provided the opportunity to work on a problem, they gain new knowledge and further extent and deepen their current understanding. When students explore and investigate, they take responsibility for their learning, as they are expected to reach conclusions (Jonassen: 2000). Similarly, Hwang and Chang (2011) argue that when students learn by means of discovery and investigation in authentic settings, they improve their critical thinking skills.

Furthermore, a research study by GU et al. (2015) has found that students involve in inquiry-based practices have reported higher levels of academic self-efficacy they have been less afraid to take risks. Harlen (2013) claims that developing understanding through student’s own thinking and researching has many

benefits for students including: enjoyment and satisfaction in finding for themselves something that they want to know, seeing for themselves what works rather than just being told, satisfying and at the same time stimulating curiosity about the world around them, and developing more ideas.

In this sense as well, Alfieri et al. (2011, p.1) refer to the benefits of IBL in the classroom by contending that: *“allowing students to interact with material and models, manipulate variables, explore phenomena, discover their underlying causalities, and learn in ways that are seemingly more robust.”* The key terms in this statement are: interacting, manipulating (the manipulated variable that you can control and change based on the experiment), exploring, and discovering.

1.4 Effectiveness of Inquiry-Based Learning

Research surrounding the effectiveness of IBL and instruction is broad but inconclusive. There is mounting evidence-based research that supports the use of IBL in schools (Bruder and Prescott, 2013) and significant research that speaks to the positive effects IBL has on student motivation, engagement and achievement (Sever and Güven, 2014).

Research has shown several important factors that are related to the effectiveness of an inquiry-based approach to learning; they include student prior knowledge, level of teacher guidance, teacher skill set and school support. According to Wirkala and Kuhn (2011), activating student’s prior knowledge before engaging in IBL contributes to its effectiveness. For instance the teacher can activate students prior knowledge by allowing them to orally share their ideas and the items they already learned.

Harris and Roaks (2010, p. 232) state that “*There is broad agreement that student success in inquiry learning environment is dependent upon skilled and thoughtful guidance from teachers*”. In other words the teacher or the facilitator contributes the most in creating an inquiry environment that helps students reach the different stages of inquiry. As for Wang, Kinzie, McGuire and Pan (2010), they suggest that the amount of teacher support directly relates to the success students experience when engaging in IBL.

Teacher skill set is also a contributing factor to the effectiveness of inquiry learning. Schmid and Bogner (2015) claim that teachers who practice inquiry need to be provided with professional development to determine what constitutes too much or too little guidance for their students. Wirkala and Kuhn (2011) also find that the success of their students’ outcomes in inquiry learning environment depends on the skill of the facilitating teacher. Furthermore, Vandeur (2010) argue that school support for inquiry influences students’ ability to complete inquiry projects and mature as self-directed learners. Time is also a contributing factor to the effectiveness on inquiry learning. This means that the teachers must be well equipped with different teaching skills in order to be able to engage the students in inquiry based learning.

2. Constructivist and Social Constructivist Learning Theories

The work of Jean Piaget, which came in reaction to behaviourism, is at the origin of the most famous theories on constructivism. He claims that intelligence is not innate but built. For him, the human being is programmed to build knowledge in a given order and this on condition that the environment in which they grow up provides them with the stimulation they need when they need it. In our case, the stimulating environment is composed of the teacher, the curriculum and the social

environment of the learner. The three constructivist principles according to Deschênes et al (1996) are: 1) Knowledge is built; 2) The learner is at the center of the process; 3) Context matters. As for socio-constructivism, it is an extension of this theory by adding the importance of social ties in the construction of knowledge.

The fundamental approach to inquiry learning is based on the constructivist and social constructivist learning theories. Constructivist learning strategies capitalize on learning through inquiry and problem solving via critical thinking. In this respect, according to Asselin et al. (2003), student inquiries are encouraged to explore new ideas and understandings through personal discoveries as well as interactions with objects, texts and other people. Therefore, in such a case, knowledge is being built rather than delivered by the teacher. In this context, Driscoll (2000) explains that knowledge exists only within the mind of human beings. He argues that “*Learners will constantly try to derive their own personal mental model of the real world from their perception of that world*” (quoted in Jayeeta, 2005: 65-74). In other words, learners extract their own understanding from what they receive from the real world and what they already know to construct their own interpretation of that reality.

John Dewey is a constructivist who stated that students should actively engage in the learning process. He explains: “*if you have doubts about how learning happens engage in sustained inquiry: study, ponder, consider alternative possibilities, and arrive at your belief grounded in evidence*” (Dewey, 1998, cited in Mapes, 2009, p.11). Besides, Jerome Bruner, who has tremendously contributed to constructivism and who is primarily concerned with making education more relevant to student needs at each stage, believes that teachers could accomplish this by allowing their learners to actively participate in the learning process. His theory, named *discovery*

learning, is a form of inquiry based learning and states that students are more likely to understand and remember concepts that they discover during their interaction with the environment (Roblyer and Doering, 2013).

Vygotski, known for his social constructivist theory, explains that social interaction and critical thinking are two main ingredients of a learning process, as cited in Liu & Chen (2010) where he describes IBL as an integral part of creating (Powell & Kalina, 2009, p.244). That means, inquiry based-learning is rooted in social constructivism, where learners construct knowledge as they experience the world and reflect upon those experiences, they build their own representations.

3. Theoretical Framework for IBL

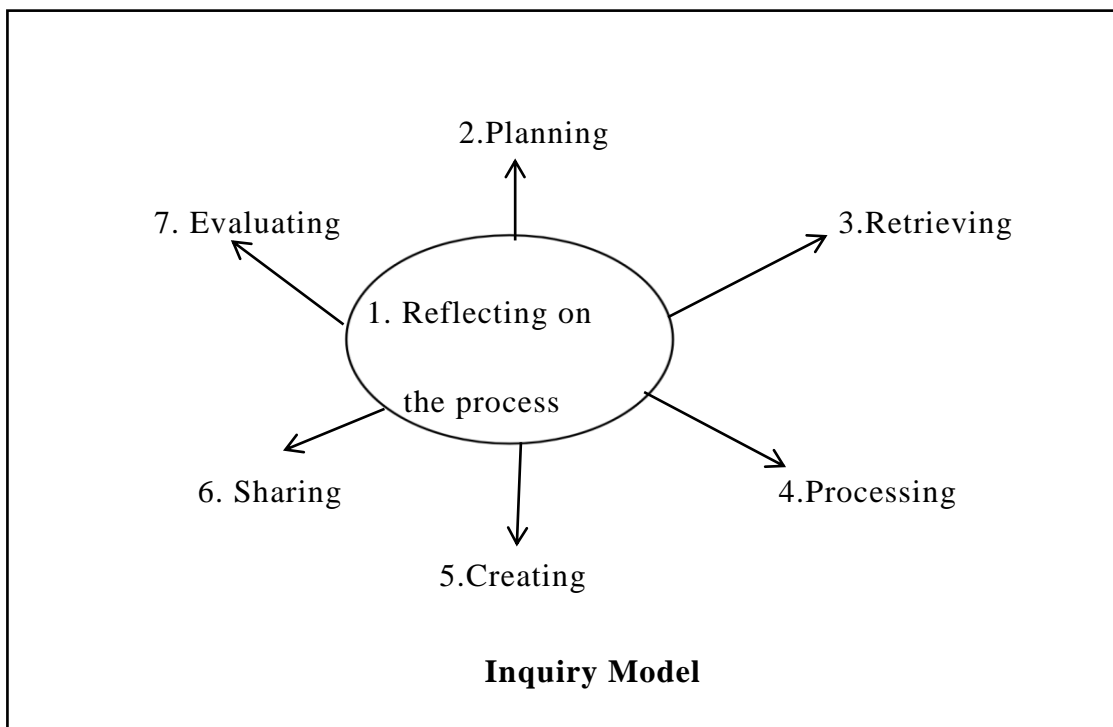
Inquiry-based learning is not a new approach to learning. It dates back to the first half of the Twentieth Century, when the US philosopher John Dewey engaged in his work as an educational reformer. What Dewey suggested in his writings on education bore the same tenants as those of today's IBL. The latter is established on the basis that new knowledge and understanding is constructed while learners are working and collaborating together, an idea put forward in Dewey's influential writings.

The act of implementing IBL in a classroom is very flexible, and can suit a variety of comfort levels. There are several levels of inquiry that can be implemented by educators. The IBL options in the classroom, around the world, range from "structured" through "guided" to "open" methods. In structured IBL, the teacher directs most of the learning, provides the inquiry question, shows learners where to find research information, and gives step-by-step instructions of how to proceed through the inquiry process. In guided inquiry, teacher and students collectively

generate the inquiry question, and the teacher acts as a facilitator through the phases of inquiry.

In this sense, the variety of inquiry phases and cycles is well documented in the educational literature (Pedaste et al., 2015). Besides, there are different series of inquiry phases with various perspectives. Much more interestingly, the way an inquiry model is presented usually suggests an ordered sequence of stages. The latter provides a clean picture of the roles of educators and learners to this concept.

In the model suggested by (Ismail, 2006) seven actions are involved: reflecting, planning, retrieving, processing, creating, sharing and evaluating.



Using an inquiry model helps students to internalize a process for inquiry that is transferable to everyday life situations. The model presented here, uses a puzzle metaphor to help students relate inquiry-based learning to their lives outside school.

1. Reflecting on the process: it is integral to all phases in the inquiry model; planning, retrieving, processing, creating, sharing and evaluating which relate to affective and cognitive domains of Meta cognition (Alberta Learning, 2004).

2. Planning phase: at this initial phase student will experience a sense of interest in or curiosity about the topic. According to (Jonassen, 2000), students will start by:

- Figuring out the general questions that need to be investigated.
- Finding the information and materials regarding the particular topic.
- Determining the way to present the information to the target audience.
- Suggesting the criteria pertinent to their research product and process evaluation.

3. Retrieving phase: in this phase, students think about the information they have and the information they want. They need to spend considerable time exploring and thinking about the information they find before they come to a focus for their inquiry. At the pre-focus phase, learners may be unsure of the amount of resources they need to have, they may not know how to determine which information is irrelevant or which is related to their inquiry.

Here the teacher–facilitator helps students by teaching them, guiding them and providing them with the correct skills and strategies to determine relevant information.

4. Processing phase: this phase begins when the student has found a focus for their inquiry, where they will be able to decide on their specific objective and aspect of the topic area that they decide to investigate. According to (Asselin, et al., 2003), facilitators must guide learners how to compare, contrast and synthesize data in order to obtain the right resources.

5. Creating phase: this phase involves organizing the information, putting it into one's own words and creating a presentation format.

According to (McGregor, 2003), instructors may also encourage cooperative and collaborative activities among the learners whereby they can be teamed up in their creative efforts and come up with the relevant resources, discussions and online projects.

6. Sharing phase: if students have been given enough support throughout the inquiry process, they will learn to communicate and share their new understanding in a variety of ways with their target audience such as through project presentations.

According to (Asselin et al., 2003), it is better to have inexperienced or novice researchers to be involved in small group sharing rather than having each individual student share their work with the whole class as it is often more successful and time-efficient.

7. Evaluating phase: in order to reach successful outcomes in inquiry, the instructor must provide the inquirers with opportunities to reflect on the original brainstorming session. In other words, students need to evaluate their inquiry process, reflect on teacher's feedback. Inquirers are also encouraged to work collaboratively at this stage to edit each other's product.

This approach seems to be appropriate for our work, and it falls into the cognitive domains in which learners are considered to be creators and thinkers through the use of inquiry, their prior knowledge and experience. Furthermore, it is important for us to remember that our students are 21st-century learners, hence we cannot teach them in the same manner as we taught yesterday's students. Our students need to be involved in the learning process. In addition, they need to formulate their own questions, direct their learning and show ownership.

Conclusion

Although the term first appeared back in the 1960s, some teachers often still wonder, “What is inquiry-based learning?”. Accordingly, far from being exhaustive, this chapter has reviewed a very small part of the huge amount of literature that revolves around inquiry-based learning and its implementation in EFL classes. We have obviously focused on the most significant definitions, explanations, notions and concepts directly related to the present research work. We have referred to the levels, the benefits and the effectiveness of inquiry-based learning. We have also provided some insights about the social constructivist learning theory and its relation to the learning process, since any teaching methodology cannot claim of having constructivist antecedents without integrating elements from inquiry-based learning, and vice-versa.

Chapter II: Research Design

Introduction

As mentioned in the previous chapter, in order to account for the issue raised above, most of our analytic categories are borrowed from the constructivist and socio-constructivist learning theories. This offers a framework which allows an investigation of teachers' attitudes towards inquiry-based learning as an approach that enhances effective learning. For the sake of collecting the appropriate data needed to explore those attitudes, a multi-method design is adopted. Various instruments are used to collect and analyse data. In order to account for the informants' attitudes, including their practices and strategies, a questionnaire is used (see Appendix). The latter is a research technique which is likely to help us gather as much information as possible about teachers' opinions and most importantly their representations of inquiry-based learning. It also helps us gain some empirically-based insights about the teaching/learning procedures adopted at the Department of English of MMUTO.

Once the data are collected, they are subjected to quantitative and qualitative data analysis tools. The quantitative data gathered from the closed-ended items of the questionnaire are analysed by means of a statistical analysis. On the other hand, the qualitative data generated by open-ended items of the questionnaire are analysed relying on Critical Discourse Analysis and Qualitative Directive Content Analysis.

1. Procedures of data collection

The present study is conducted in the Department of English at Mouloud Mammeri University of Tizi-Ouzou in the academic year 2021/2022, through a questionnaire distributed to 25 teachers in charge of different academic subjects and whose professional experiences range from 5 to more than 30 years. The questionnaire comprises both closed-ended and open-ended questions. We have adopted this research technique for the sake of getting as much information as possible about the implementation of inquiry-based learning as opposed to content-based learning. In a word, we intended to know whether teachers are aware that they cannot teach students everything and that they should train them to teach themselves.

1.2 Questionnaire

A questionnaire is a well-known research tool adopted by many researchers, students and educationists for the sake of gathering data. According to Jenn (2006, p.32) "a questionnaire is a very convenient way of collecting information from a large number of people within a period of time". Most questionnaires include open-ended and closed-ended questions which allow the researcher to get answers and explanations of concepts at the same time. Closed-ended questions alone provide us with limited information whereas open-ended questions, together with suggestions and short explanations, are more informative and reliable, especially when the study concerns its informants' attitudes towards a given teaching/learning approach.

According to Sandelowski (2000, p.246) "researchers increasingly have used mixed method techniques to expand the scope of, deepen their insights from, their studies". This means using the mixed method helps in making the results more valid and reliable. The questionnaire used in this study contains 14 questions, and it is

divided into two sections: general information about the informants themselves and then their views about the implementation of inquiry-based learning.

2. Procedures of data analysis

2.1 Quantitative method

Different researchers and educators present several definitions of quantitative research. According to Pirtha Bhandari (Nov. 11, 2022) quantitative research is the process of collecting and analyzing numerical data. In addition to this definition, it goes without saying that quantitative research is a scientific method that helps in making the research more realistic and more precise. In our study, we have relied on the rule of three to analyse and interpret the collected data after reading the answered questionnaires, more precisely the answers of the closed ended questions that helped us to get precise statistics about the teachers attitudes towards the implementation of inquiry based learning in EFL classes. Finally we classified the answers into categories which were displayed in different diagrams.

2.2 Qualitative analysis

As for qualitative data analysis, we have used content analysis, and in doing so; we have carefully read and studied the answers of the open-ended questions. According to Jenn (2006, p.33) closed ended questions provide options to the respondents and require them to choose one or more items from the list whereas the open ended questions allow the respondents to express their opinions freely and they are not restricted by the options. Accordingly, we have analyzed and interpreted the findings on the basis of categories borrowed from the social constructivist theory together with insights suggested by IBL advocates. The qualitative method is a deeper method which provides more information about the research. In his article,

Steven Tenny (Sept. 2022) has defined qualitative analysis as an operation that “gathers participants’ experiences, perceptions and behaviour. It answers the hows and whys instead how many and much.”. In other words, the qualitative analysis helps in measuring variables and makes valid inferences from the data to their context.

Conclusion

In this chapter, we have presented the research design and methodology of the study. It includes the description of the research tool that we have used, the data collection procedures and the types of analysis that we have adopted. We have not been exhaustive by any means, but we have given a brief overview of the different stages followed by the study.

Chapter III: Presentation of the Findings

Introduction

As the name of the chapter indicates, it deals with the results obtained after collecting the data about the approach and their study which is the implementation of Inquiry-based learning in EFL classes after reading and analyzing the questionnaires distributed to 25 teachers, we've got answers that were turned into statistics using the rule of three and displayed in tables and diagrams for the safe of legibility.

This chapter contains two main parts. The first part deals with the first section of the questionnaire which includes general information about the participants and the second part deals with the teachers' views about the implementation of inquiry-based learning. The aim is to see whether it is implemented by the teachers of our English department in UMMTO.

1. Presentation of the results of the questionnaire

The research tool used to collect the required information for our study is the questionnaires distributed to the teachers of English department..

1-1 Part one: General information about the participants:

Q1: *How long have you been teaching at the department of English?*

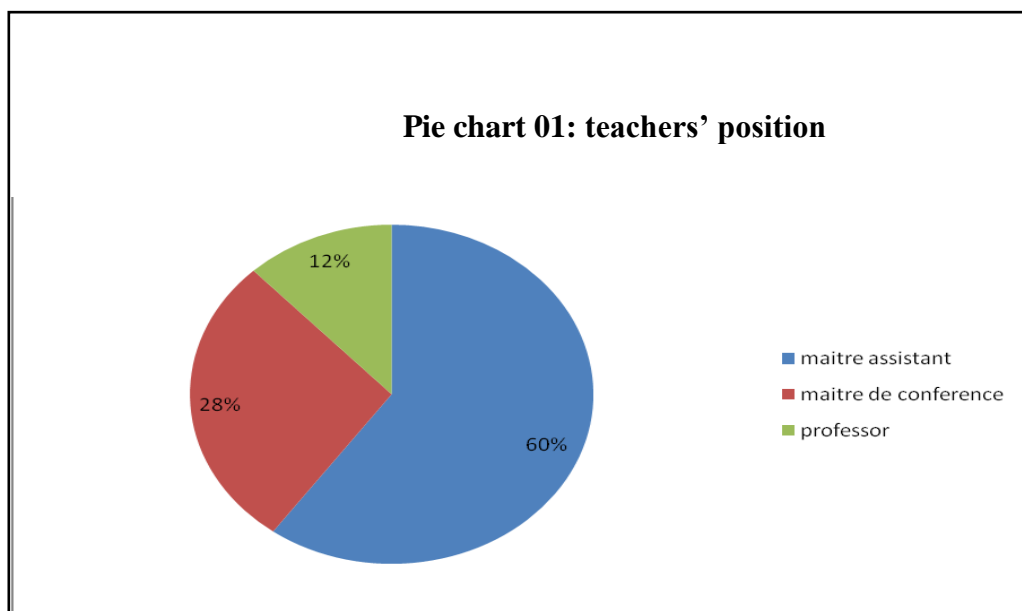
Years	1-5 years	5-10 years	10-20 years	20-30 years or more
Percentages	40%	28%	20%	02%

Table 01: Teachers' experience.

The above table shows the experience of the participants teaching in our department, it shows that the majority of them have 1-5 years of experience (40%), whereas the minority has got

between 20 to 30 years or more (2%), some others have 5-10 years of experience (28%), and the remaining ranges between 10-20 years (20%).

Q2: *Which position do you hold?*



As we observe from pie chart 01, the majority of the participants represent maitre assistant (60%). Some teachers are maitre de conference (28%), while the minority (12%) is professors.

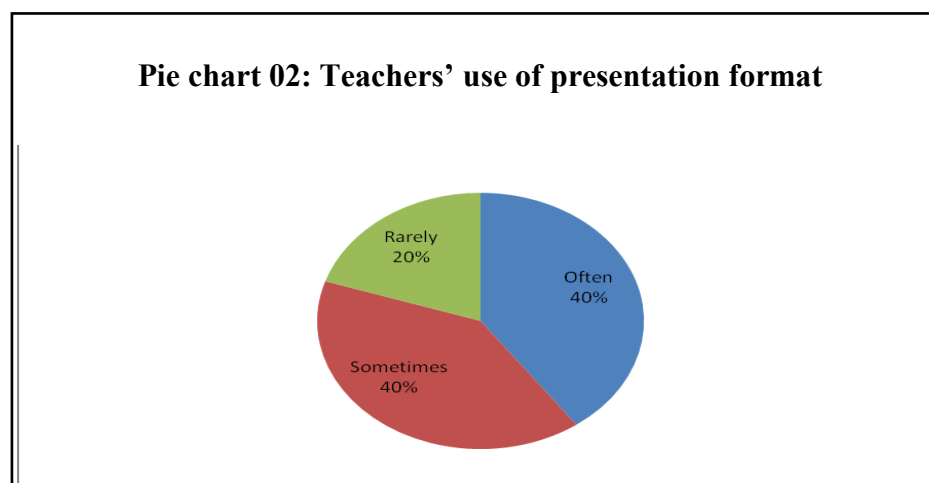
Q03: *Which level do you teach?*

Level	Freshman (L1)	Sophomore (L2)	Junior (L3)	Master I	Master II
Number	2	3	5	10	5
Percentage	8%	12%	20%	40%	20%

Table 02: Learners' profile

The results obtained that the majority of our participants are teaching Master(1) students with the percentage of (40%), the minority of them are teaching (L1) students with the percentage of (08%), whereas some of them are teaching (L2) students with the percentage of (12%) ,the remaining are teaching both (L3) and Master(2) students with the percentage of (20%).

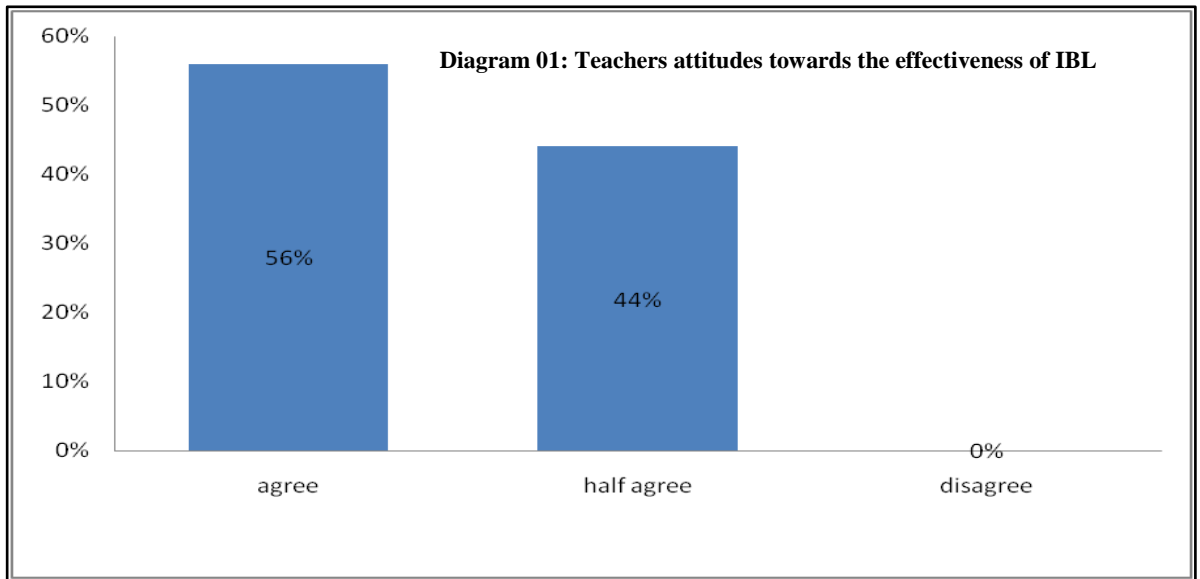
Q4: *Have you ever set your students to conduct a research work and give a presentation before their peers in the classroom? How often?*



This pie chart shows that (40%) of teachers often give presentations (exposé) to their students in the classroom, while (40%) do it sometimes and (20%) rarely apply this technique.

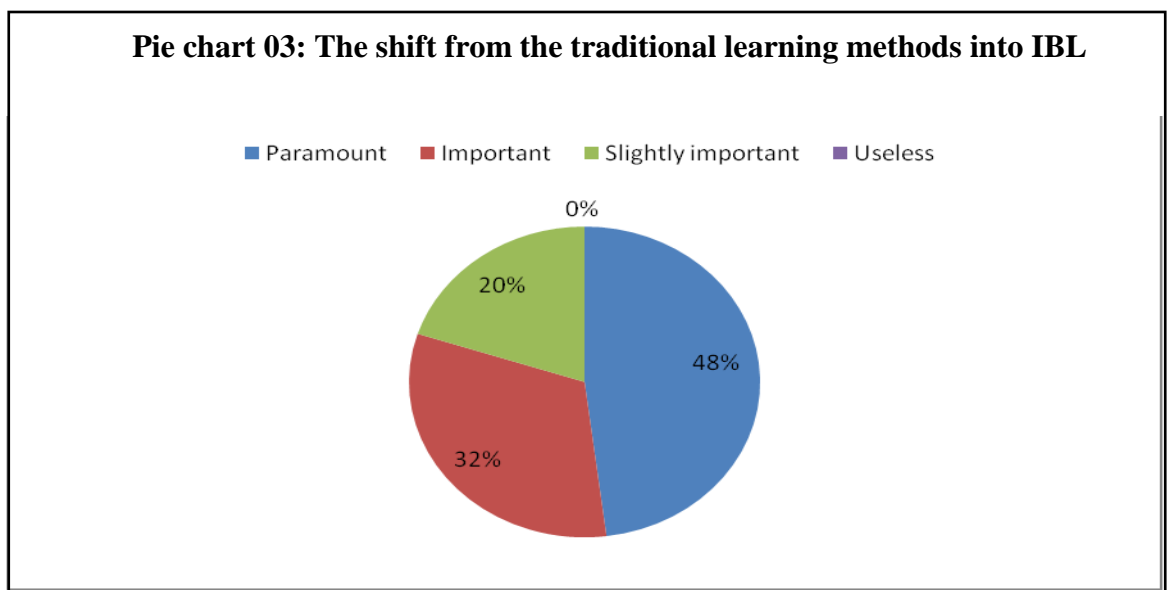
1-2- Part Two: Teachers 'views about the implementation of inquiry based learning:

Q1: *Inquiry based learning (IBL) allows students to use their critical thinking skills and enhance their creativity by asking living experiences and exploring the world.*



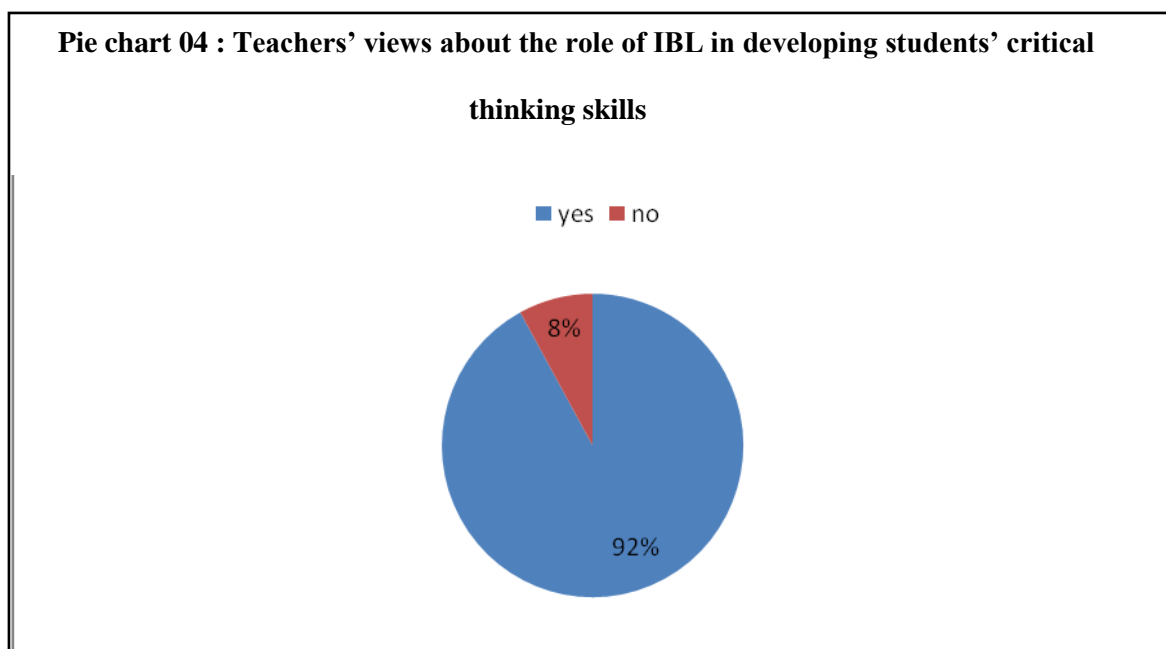
The item sheds light on whether Inquiry based learning allows students use their critical thinking skills and enhance their creativity by asking questions. For this, the majority of the participants (56%) agree with this statement, while the rest of them (44%) state that they are half agree with the fact that this technique is helpful for their learning process, as for the third preposition no one has selected.

Q2: *IBL is considered as a new approach that has come as a response to the traditional teaching methods. How important is it to shift from the traditional learning method into inquiry based learning? Would you explain why?*



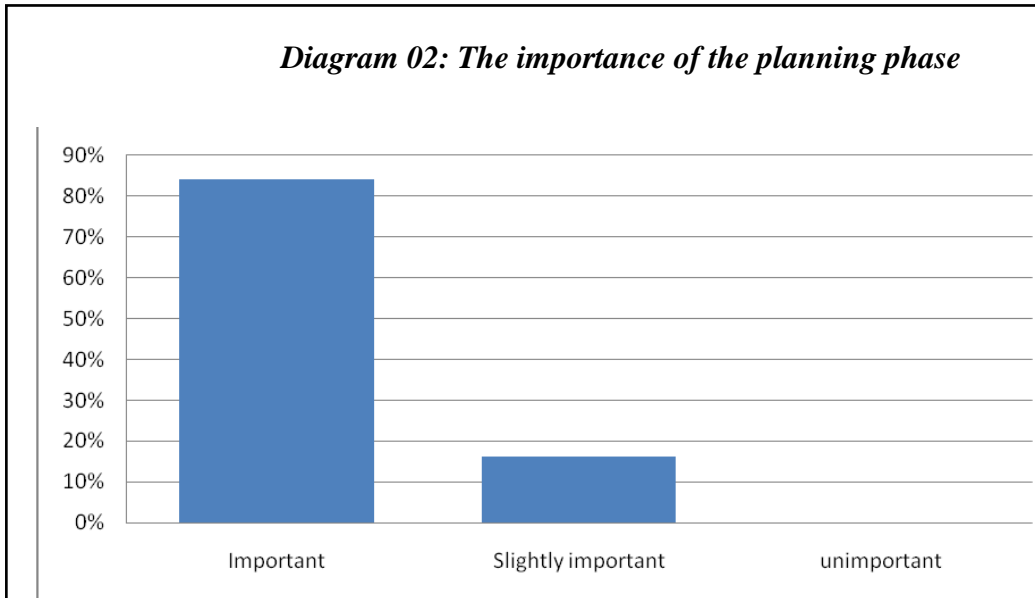
Would you explain why: The answers given to this question can be read as follows: twelve (12) of teachers said that this shift is paramount because students should use their communicative skills in the classroom and ask questions, eight (08) of them believe that they should cope with the advance of technologies in their time, while five (05) of them have viewed that students must use their background information while learning and share it with their classmates.

Q3: *In which way does inquiry based learning help students to collaborate and work as a team to discover new information and to develop their critical thinking skills?*



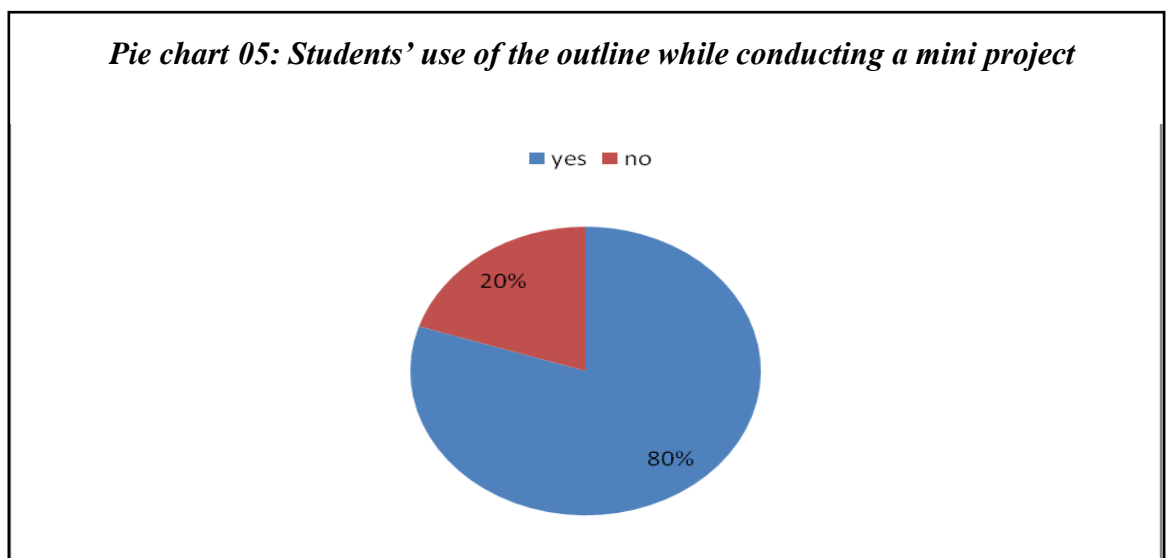
As indicated in the pie chart, it can be seen that a great part of the teachers (92%) agreed that (IBL) help students to collaborate and work as a team to learn most effectively in the classroom. On the contrary, few teachers (08%) disagree with this idea.

Q4: *Planning is the most important phase of reflecting on the process of inquiry based learning. In your opinion, how important is it for inquirers to identify and circumscribe their topic area before they start their study?*



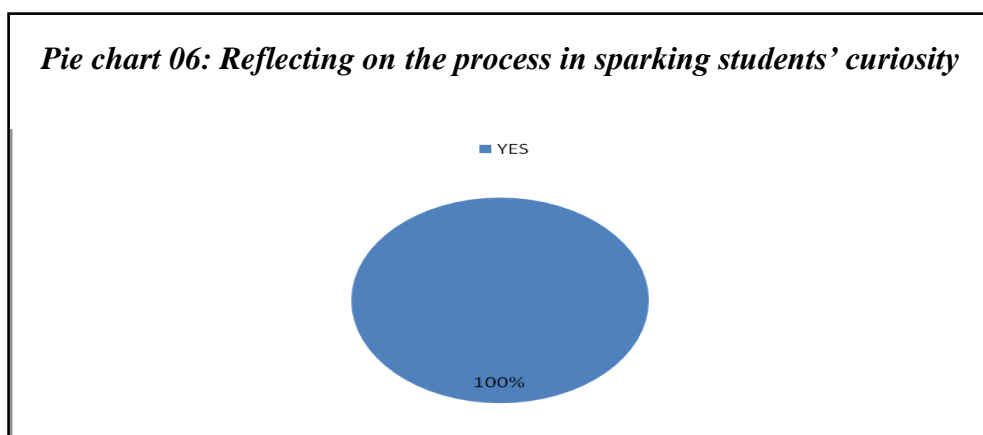
As we observe from this diagram, it shows that the majority (84%) of teachers think that it is important for inquirers to identify their topic area, whereas as small number of teachers (16%) have viewed that it is slightly important. As for the third preposition no one has selected it.

Q5: *When you set your students to conduct a mini project, do they write an outline and consider it as an essential stage in the process?*



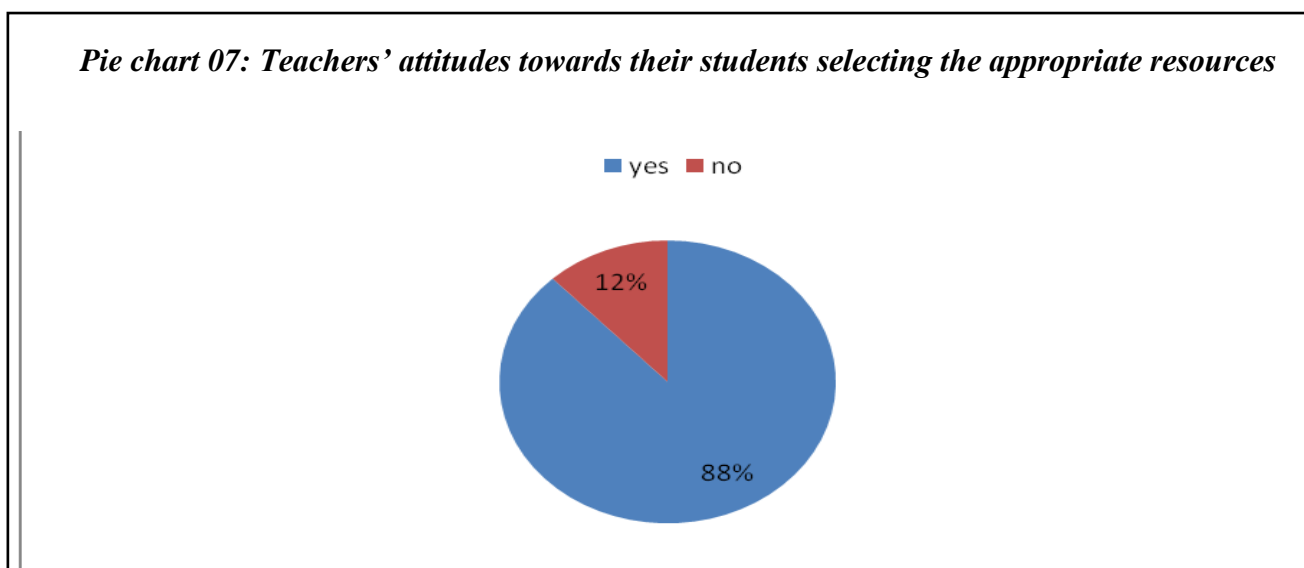
From this pie chart, it appears that the majority of teachers (80%) claim that their students rely on outlining their presentation or a mini project and consider it as a crucial element in the process, whereas a few number of teachers (20%) claim that their students do not adopt this technique.

Q6: *Reflecting on the process is integral to all phases of inquiry model. Do you think that it sparks the inquirers' curiosity and interest about the issue that needs to be solved?*



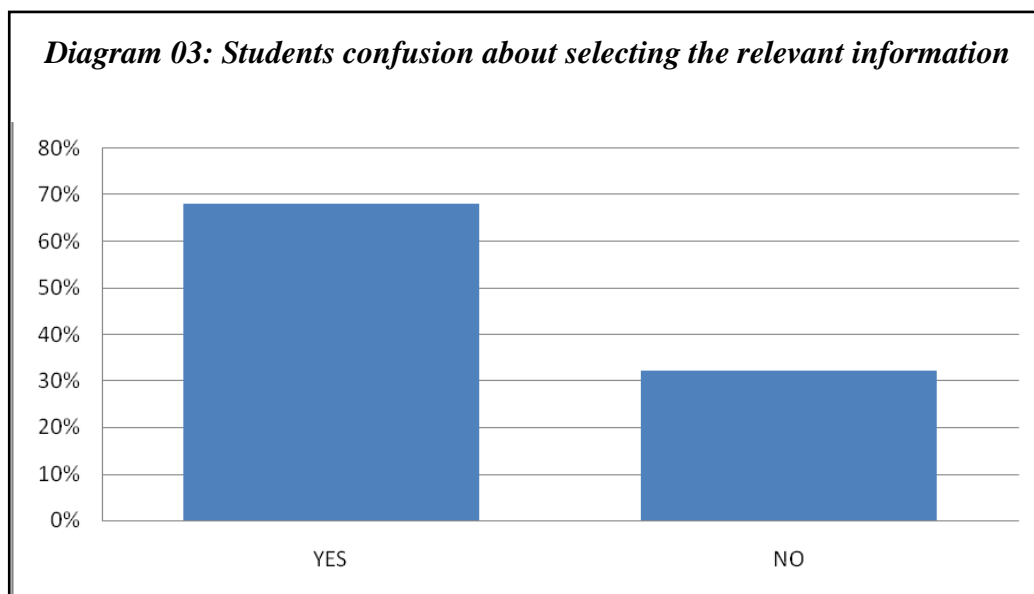
100% of teachers confirm that reflecting on the process sparks the students' curiosity in their learning process, and it is of a big importance as it is mentioned above, as well as very helpful in the EFL classes.

Q7: *During the research process, students may find several resources related to their topics. Do you help them to select the appropriate resources?*



This pie chart reveals that 88% of the participants help their inquirers to select the appropriate resources, while a few of them 12% do not help them during their research process.

Q8: *Do you think that the amount of information and the resources available about the topic under study makes students confused about selecting the relevant information ?*



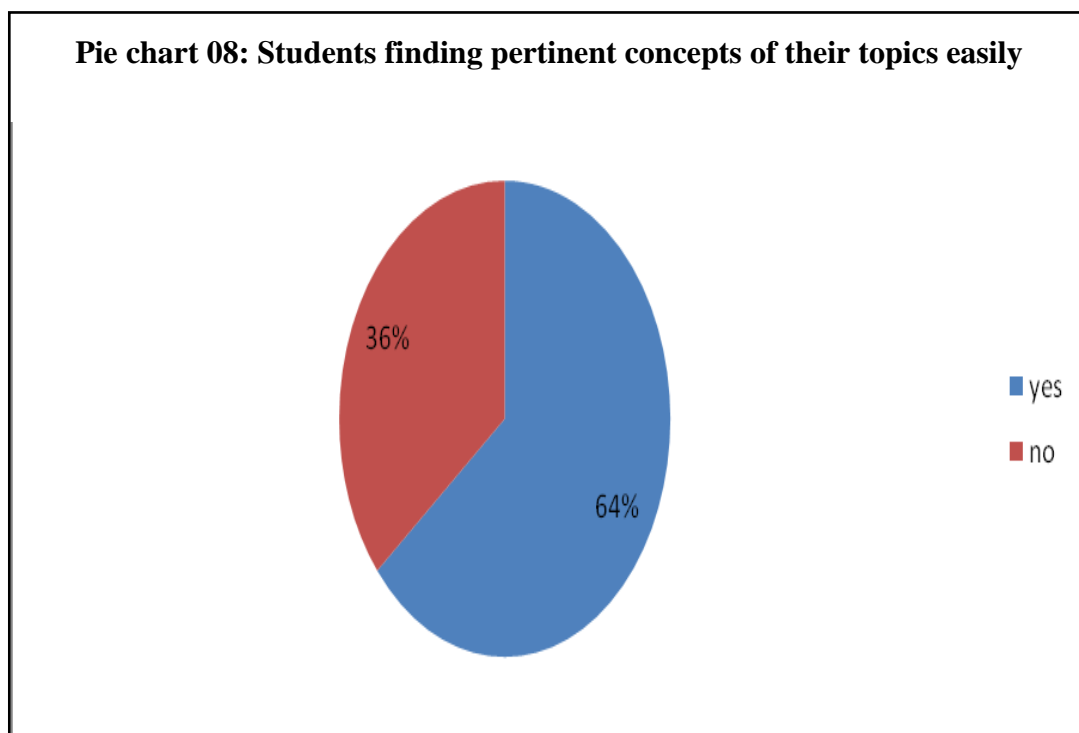
From the results obtained from this question, we can clearly see that a great number of teachers (68%) view that students may really face difficulties in selecting the appropriate resources and may be confused because of the amount of information available about the topic understudy. whereas, contrary to some others 32% who think that they do not face any of this difficulties.

Q9: *According to you how can students make connections and inferences in order to locate and collect the right resources?*

It can be seen that to the most of the teachers 11/25 claim that students have to know the keywords and concepts on the topic they are working on before they undertake their research, which is based on analyzing and synthesizing.8/25 of them claim that students can make connections and inferences to collect the right resources using their critical thinking skills and

by collaborating, discussing with their peers. A small number of them (4/25) state that they can do it by learning the codes and by using only websites affiliated to educational institutions whereas the remaining informants assert that it is through documentation, building the curriculum and reading between lines.

Q 10: *Do you think that students come to find pertinent concepts of their topic easily? Why?*



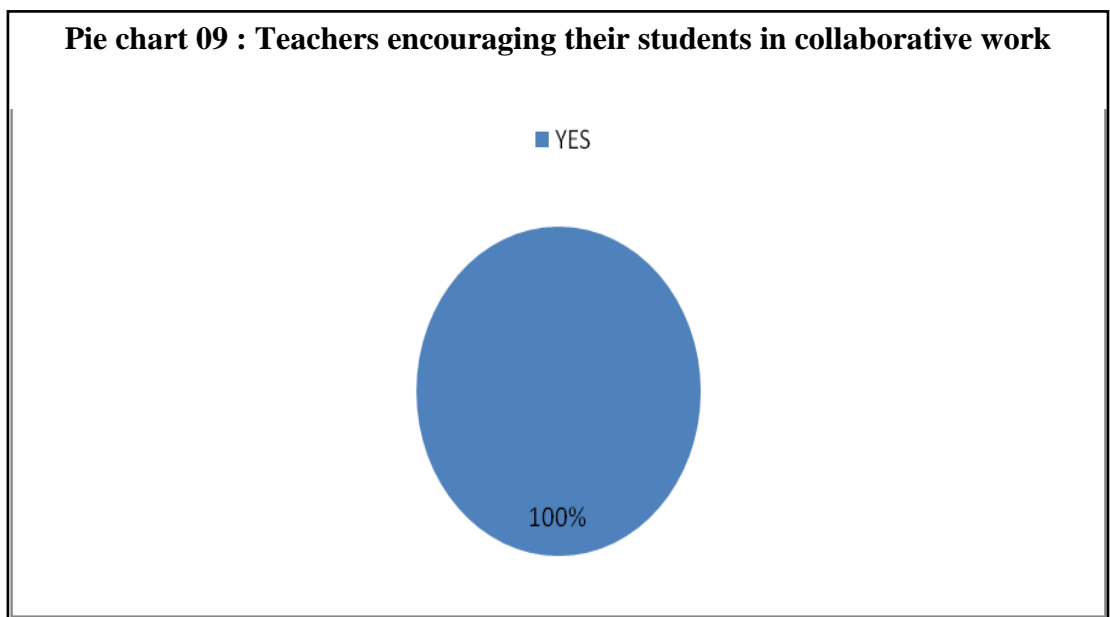
It can be seen from the percentages that a great part of teachers (64%) think that students find pertinent concepts of their topic easily, whereas some other teachers with (36%) do not agree with this idea.

Would you explain why: The results gathered from this question show that 16 teachers confirm that students do not find difficulties about finding pertinent concepts of their topic since are hardworking students who read and analyze their subjects, whereas some other teachers 09 claimed that students might find difficulties because research is time taking and students do not read.

Q11: *In your opinion how can students create their oral presentation?*

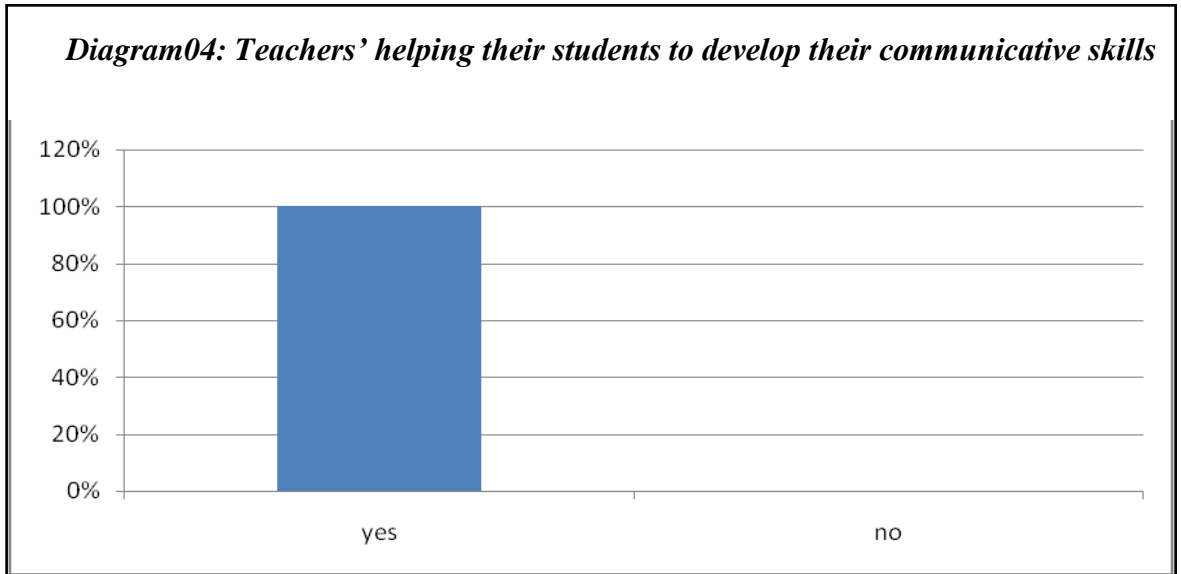
It appears that (16/25) teachers claim that students create their presentation format by understanding first the topic and identifying the objectives and the plane which is based on the main concepts to make a research about. Therefore, (8/25) teachers assert that students must choose the appropriate materials for their presentation, the rest of the participants two of them have suggested that students should follow the IMRAD model.

Q12: *Do you encourage collaborative work in your classroom activities?*



As it indicates in this pie chart we observe that all teachers 100% confirm that they encourage collaborative work in the classroom activities.

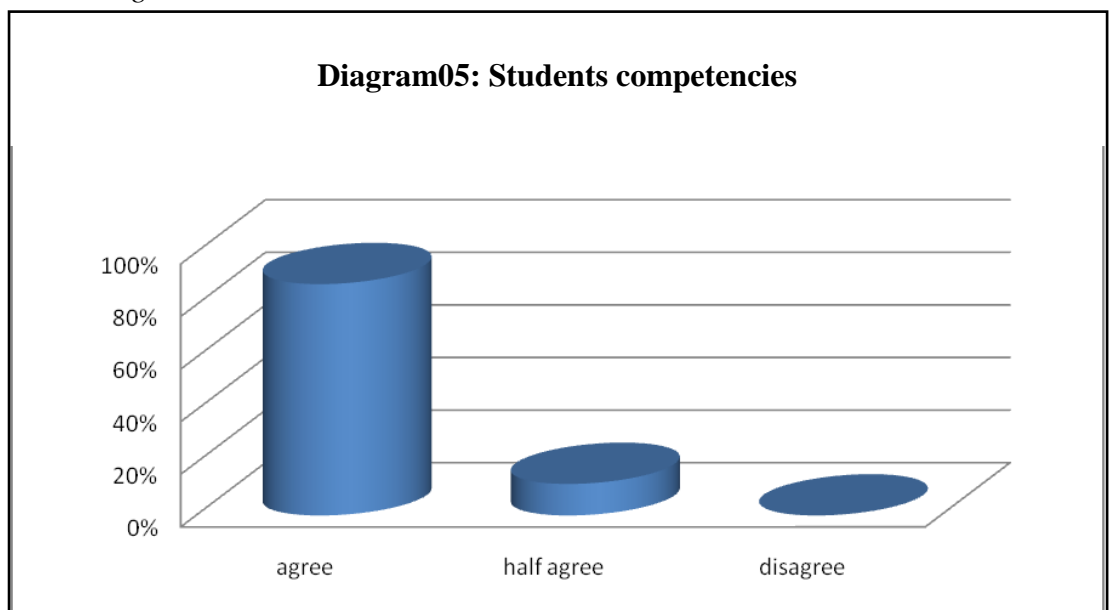
Q13: *In your opinion, does IBL help teachers to develop communicative skills in their learners?*



Would you explain why?

All of the teachers agree that inquiry based learning help in developing communicative skills of their learners because it pushes them to practice more since this approach (IBL) is based on students' participation during their learning process.

Q14: *Competencies should be developed in a gradual way and by means of valid evaluation of one's strategies.*

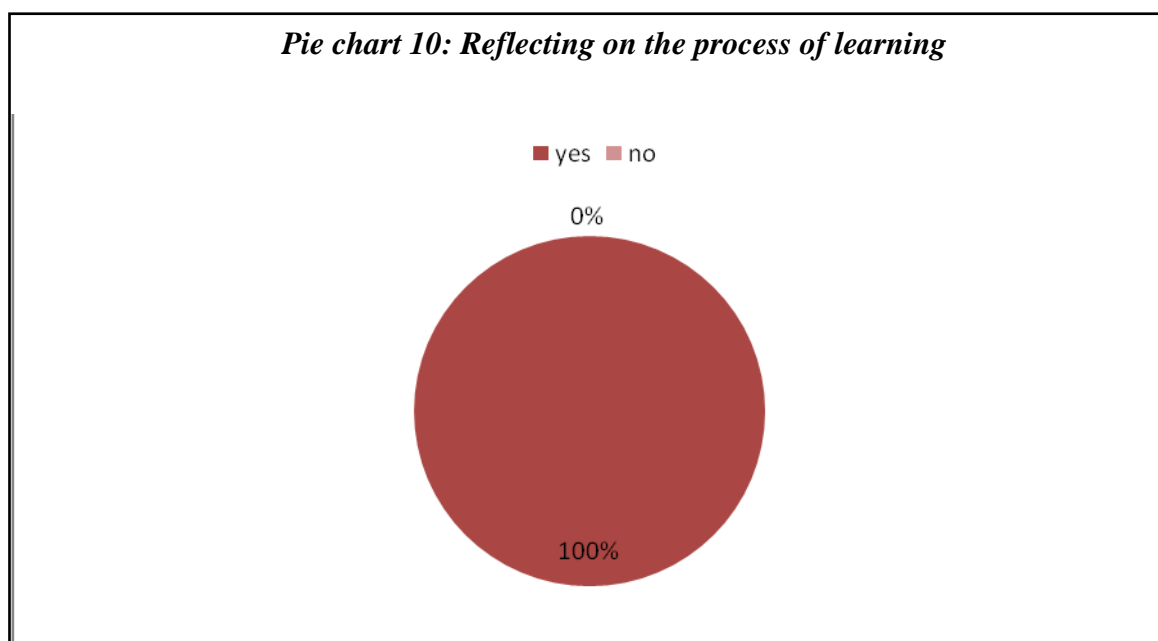


From this diagram, we notice that the majority (88%) of teachers agree that competencies should be developed in a gradual way by means of valid evaluation while some other teachers (12%) are half agree with this idea, for the third preposition no one has chosen.

Would you explain why:

From the results collected, 17 teachers claim that students' competencies progress step by step through communication, interaction, and also through sharing ideas and understandings. Eight other teachers find that students should plan for their research topic and choose the appropriate resources and take the needed information.

Q15: *In your opinion, do inquirers need to reflect on what they are learning in order to get valuable feedback?*

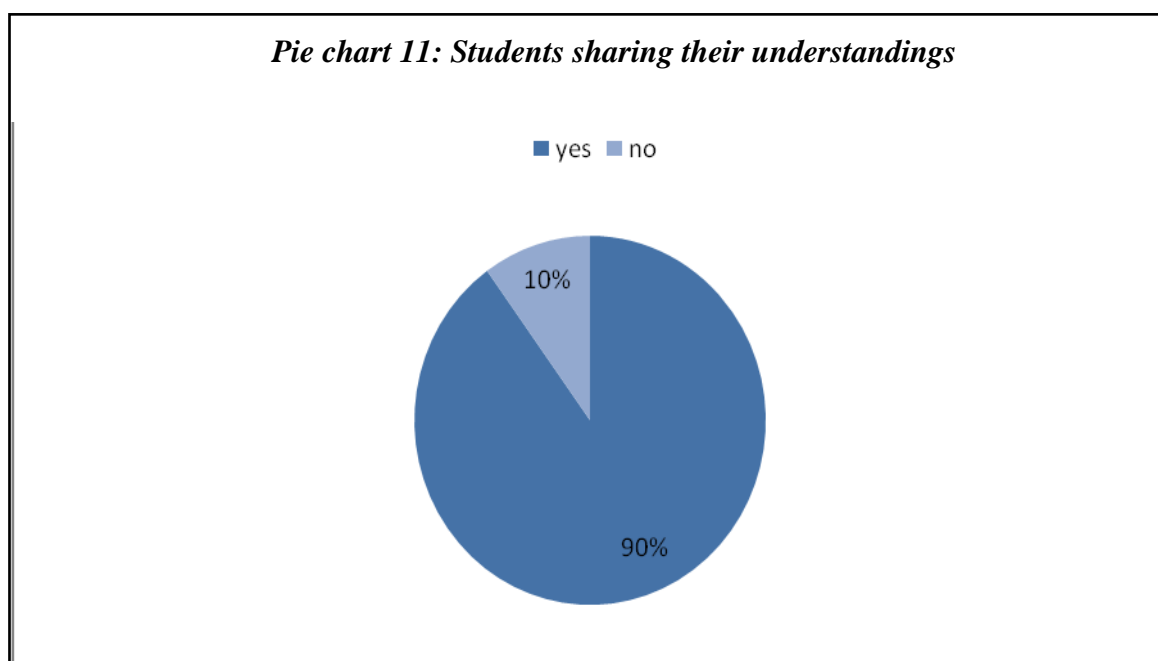


This pie chart shows clearly that all the teachers with 100 % agree that inquirers need to reflect on what they are learning.

In what way?

From the results gathered, all the teachers (25/25) agree with this idea since it helps them to discuss and share with their mates in order to get feedback from their teachers.

Q16: *Do your students share their new understandings in a variety of ways?*



As it is displayed in this pie chart, most of teachers with 90% agree that their students share their new understandings in a variety of ways, whereas it is the contrary for a few number of teachers with 10% who do not agree with this idea.

Q 17: *How can students evaluate their inquiry process and the final product?*

All the teachers (25/25) state that students can examine the development of their inquiry and focus by using some learning tools like rubrics and checklists.

Conclusion

The current chapter has described the results of this study after reading and calculating the teachers' answers provided in the questionnaires for the sake of examining the teachers' views about inquiry-based learning and its implementation in the Department of English at MMUTO. Most of the participants encourage the use of IBL in EFL classes since they find it an effective approach to teaching and learning. These findings will be discussed in detail in the next chapter.

Chapter IV: Discussion of the Findings

Introduction

The present chapter aims at explaining, analyzing and discussing the results obtained from the questionnaires distributed to 25 EFL teachers working at the Department of English of MMUTO. It is important to note that the data collected are to be treated with analytic categories borrowed from the related literature presented in Chapter II, more particularly, the constructivist theory of learning and the inquiry model suggested by Ismail et al. (2006). The analysis of the findings will allow us to confirm or disconfirm the research hypotheses set in the General Introduction of the present dissertation. The current chapter is divided into two sections: the first one consists of a very short discussion of the informants' profiles and their potentials in terms of professional experience, and the second, much longer, represents the core of the present research work since it discusses teachers' views about the implementation of inquiry-based learning in EFL classes.

Section one: Teachers' profiles

According to the results obtained from the questionnaires administered to teachers working at the Department of English of MMUTO, many informants (40%) have about 1 to 5 years of teaching experience, some others (28%) have about 5 to 10 years, twenty percent (20%) of them have taught for about 10 to 20 years, and a minority (12%) have about 20 to 30 years. In the light of these data, and far from considering that they are novice practitioners, one may say that most of the teachers working at the Department under study have a relatively insufficient experience in the profession while the implementation of IBL does need to be supported with appropriate teacher training and experience in the field. It is through experience and professional

self-development that teachers develop strategies and techniques to adopt in the classroom.

It is also noted from the results displayed in table 02 that most of the informants(60%) are assistant professors (maîtres-assistants) whereas twenty-eight percent of them (28%) are lecturers (maîtres de conférences), and only twelve percent (12%) are professors. Besides, it is worth mentioning that more experienced teachers teach students enrolled in the “License” course whereas younger ones teach Master 1 and Master 2 students. The point here is not who is teaching whom, but who, among the teachers is convinced that they can be successful in communicating content by involving students in cognitively demanding activities, thereby following constructivist principles? While most teachers agree with the constructivist views, their preferences and classroom practice, influenced by individual characteristics, vary greatly, due to their respective initial education and their professional development.

As stated in pie chart 02, 40% of teachers set their students to conduct research works in pairs and offer them the opportunity to give presentations before their peers. Yet, 40% of them rarely do it, and 20% do not do it at all. As far as research work and presentations are concerned, one may say that they help foster constructivist and even social constructivist beliefs and enhanced activities, this goes hand in hand with the constructivist learning theory and its principles already mentioned in the literature review which states that knowledge is built and that the student must discover new ideas, concepts and texts. They constitute an excellent pedagogic choice in itself, but the teacher should be aware of the type of inquiry they are to adopt and the type of procedure they should follow. The literature related to this domain suggests several different models ranging from ‘structured inquiry’ to ‘open inquiry’, as stated in Chapter I Besides, this choice encourages team work and interaction between students in the

classroom as stated in the sharing phase of the inquiry model presented by the Alberta Learning Guide (2004). Indeed, it is through project presentation that the inquirers will learn to communicate and share their new understandings in a variety of ways with their target audience.

All in all, one may say that, whatever the length of the teacher's experience and whatever their academic degree and professional position, the quality of their classroom practice mostly depends on their beliefs and their knowledge. The results of the questionnaire show that most teachers' attitudes are, more or less, consistent with their classroom practices, namely beliefs about learning objectives, syllabus, instructional materials, classroom techniques, teachers' roles, students' roles and assessment. Yet, it is worth mentioning that there is a discrepancy, namely in terms of teachers' beliefs about classroom procedure. In this respect, it is worth noting that the factors contributing to shape teachers' attitudes, beliefs and knowledge are (1) experience as language learners, (2) the training courses or seminars they attended, (3) personal factors as members of an academic community, and (4) their classroom experience as EFL teaching practitioners.

Section two: Teachers' Views about IBL in EFL Classes

The present section, which takes the lion's share in this discussion is devoted to teachers' views about inquiry-based learning and its implementation in the Department of English at MMUTO. The outcomes of our investigation have revealed that the majority of the informants (56%) agree that IBL allows students to use their critical thinking skills and enhance their creativity, but 44% of them half-agree. Unfortunately, the latter attitude confirms our hypothesis that there could be 'resistant' teachers who refuse change and keep attached to traditional approaches. The view put forward by Kachelin and Zwoom (2001) states that it is unfortunate that the traditional education

system inhibits the natural process of inquiry. In traditional schools, students are not encouraged to ask too many questions. Instead, they are expected to listen and memorize the drilled contents, and this results in their inability to develop their thinking skills.

As for the importance of the shift from the traditional learning approaches and methods to the constructivist views and IBL, the results have shown that 48% of the teachers find this shift of paramount importance because, they think, learning cannot take place without inquiry. They also sustain that students should use their communicative skills in the classroom and ask questions. Thirty-two (32%) of them believe that students must cope with the advances of technologies, and 20% claim that students should mobilize their background knowledge while learning and share it with their classmates. The latter views are in line with Jeff C. Marshall and Robert M. Horton (2011), who claim that nowadays most teachers are moving from a position of delivery education to the role of facilitators who assist students in problem solving situations.

As displayed in pie chart 04, a large majority (92%) of the informants believe that IBL helps students to collaborate and work as a team to discover new information and develop their critical thinking, and a tiny minority (8%) sustain that it does not. The formers' beliefs go hand in hand with the view suggested by Asselin et al. (2003), which claims that it is better to have inexperienced or novice researchers to be involved in small groups sharing rather than having each individual student sharing their work with the whole class. They also sustain that it is often more successful and time-efficient to adopt what is commonly referred to as 'the collaborative approach' than setting learners to conduct individual research work.

The questionnaire has also revealed that 84% of the informants believe that it is important for inquirers to identify and circumscribe their topic area before they start their study, whereas 16% of them think that it is not that important. Contrarily to what

this minority of informants believe, before starting any inquiry there must be a plan to follow and steps to be taken at this stage. According to Jonasson (2000), students should start by figuring out the general hypothesis that needs to be investigated and then find information and materials regarding the particular topic. After that, they should determine the way to present the product of their investigation to the target audience.

The teacher, on their turn, suggests pertinent criteria for the evaluation of both the process and the product.

Pie chart 05 of our findings reveals that most students do write an outline and consider it as the starting point of any kind of research; this is what 86% of informants have affirmed. This shows the importance of outlining as it allows students to select relevant information, organize their thoughts about the topic and connect their information to support their research work. Crème and Lea (2001) state that writing an outline represents seventy-five percent of the research process in addition to making the writing of the dissertation less tiresome and smoother. In other words, students who do not outline their research work are more likely to fail in their endeavor. Their effort will certainly result in a mediocre product.

According to the results presented in the previous chapter, all (100%) the informants affirm that all phases of inquiry-based learning should be integrated in order to make the students experience a sense of interest and curiosity about their topic. Our agreement with this affirmation springs from our belief that using an inquiry model helps students to internalize a process for inquiry that is transferable to every life situation. We also agree with the idea that inquiry-based learning is about triggering curiosity in students, and initiating a student's curiosity achieves far more complex goals than information delivery. Overall, despite its complex nature, inquiry-based

learning is considered easier for teachers because it does not only shift responsibility from educators to learners, but also it is engaging for students.

As mentioned in the previous chapter, 88% of the teachers help students to select the right resources whereas 12% of them do not. In fact, according to the principles of this approach, the teacher acting as a facilitator must guide students and provide them with the correct skills and strategies to determine relevant information. It is noted in diagram 03 that most of the informants (68%) see that the amount of information makes students confused when selecting the relevant data. On the contrary, thirty-two percent (32%) of them think that it does not really have an impact on students. In fact, it is true that when students come to conduct a research work, they are faced by a huge amount of resources, and this profusion of information makes them confused about the appropriate resources they need. This goes hand in hand with the view suggested by Asselin et al. (2003), who claim that facilitators should guide their learners in the operation of comparison, contrast and synthesis in order to obtain the right data from various sources.

From the results obtained, we find that most of the teachers in the department under study sustain that, in order to locate and collect the right resources by making inferences and connections, students should have key words and concepts about the topic, based on reading, analyzing and synthesizing. This means that when students take information from multiple resources, they should analyze and then synthesize the information they need. Therefore, when these sources are combined together, one creates one coherent idea, and this is typically how students learn and perceive new ideas and provide new insights. Some informants suggest that students should use their critical thinking skills in order to collect the right resources for a project work. Thus, the importance of critical thinking skills in the learning process is unanimously agreed upon. Indeed, many researchers have supported this idea. For instance, Kurfiss (1988,

p.2) defined it as an investigation whose purpose is to explore a situation, phenomenon, question or a problem to arrive at a hypothesis or conclusion about it that integrates all available information and that can be convincingly justified. In other words, critical thinking is of paramount necessity in any learning process, because it enhances creativity and it reinforces problem-solving abilities.

A very limited number of the informants state that students can make connections to collect the right resources by learning the codes and by using only web sites affiliated to educational institutions, with resources related to the subject that serves as a tool to enhance learning. This probably means that teachers find it as an efficient way to motivate their students, which provides students with an effective orientation to go through. Although, other informants have a different vision, they have suggested the use of the documentation in data collection; this shows the great importance it has on the student's research, and the purpose behind documentation which is providing valid information.

The result obtained from this question is an agreement with all views provided by scholars about the importance of the facilitator's guidance of their students about data collection tools. This reinforces the idea of the importance of teachers guidance in teaching the students the different techniques they need to choose and select the right resources as it is mentioned in the retrieving phase of the literature review.

As it is revealed in the pie chart 08, a great number of teachers (64%) sustain that students often come to find pertinent concept of their topic easily. Some teachers for instance, claim that students do not find difficulties about it since they are hardworking students who read and analyze their subject. Besides, 36% of teachers have a negative response about this question. This can be interpreted by the fact that research is time consuming and students do no read. This is more related to one of the

phases of inquiry model “ processing phase “ which involves coming to a focus for their inquiry, concepts of the topic area that they decide to investigate. Even so, choosing pertinent information or concepts from resources is a difficult task; there may be too little information or too much information.

Helping students about the use or the identification of the concepts is very important in making inferences and connections to follow a correct research. This is shown by Asselin et al. (2003), who claim that the facilitator should guide learners how to compare, contrast and synthesize data in order to obtain the right resources. According to Harris and Rooks (2010, p. 232). “ There is broad agreement that students’ success in an inquiry learning environment is dependent upon skills and thoughtful guidance from teachers.” The teacher can change any attitude about any subject matter and about the learning process itself. The teacher also named facilitator influences the students’ achievements and success, he is responsible to provide them with the needed information and also guide them to select the right resources for their projects or presentations. The teacher is also supposed to make the students feel free to express their ideas, personal visions and understandings of different issues and communicate them with their mates.

It is clearly shown in the previous chapter that the majority (16 out of 25) of informants claim that students create their presentation format by understanding first the topic and identifying the objectives and the plan based on the main concepts to conduct a research. This means; at this stage the inquirers have a certain amount of readiness and are able to organize the information as well as create a presentation format.

As mentioned above, in order to create an effective presentation format, students should follow some steps. They should first master and prepare their topic

carefully, a good presentation must be planned. The learner must plan how to begin the presentation and how to end it without losing the audience's attention. It should also be matched with the objective and should be well organized, in other words, preparing an oral presentation. Eight out of twenty-five (8/25) informants recommend that students should choose the most appropriate materials for their presentation it can be very helpful to include visual aids, i.e., display items and visuals that can facilitate readability and student creation such as charts and graphs used to visually compare statistics and figures using diagrams, quotes, photographs and maps, the latter being considered as the most efficient way to communicate complex information.

One of the informants suggests for students to follow the IMRAD model, which refers to a structure that contains four main sections: Introduction, Method and Materials, Results and Discussion. This model allows students to organize their dissertation in a well-structured way; it enables the reader/audience to understand easily the key message of the presentation and to be inspired as well. The teacher must provide the students with the necessary steps of this model, this goes hand in hand with the view of the importance of teachers guidance in chapter one .It is advocated by John Adair (2009), who says that “ Innovation is more than having new ideas: it includes the process of successfully introducing them or making things happen in a new way; it turns ideas into useful, practicable products”.

Furthermore, as it is reported in the previous chapter, 100% of teachers affirm that they encourage and support collaborative work in classroom activities. They claim that it would encourage students to engage in an effective inquiry activity. Their attitude is certainly appreciable, since collaborative work provides the opportunity for all students to be actively involved in classroom activities. As for the teacher, they would act as facilitators to create a supportive environment in which collaboration and team

work are encouraged. They provide their inquirers with an opportunity to open to new ideas through feedback and by exchanging their understanding in a variety of ways, which helps in developing understanding and mastery concepts and communicate with one another. It would also help them grasp new knowledge at a deeper level.

The latter insights are supported by the collaborative learning theory suggested by Lev Vygotski through his famous "Zone of Proximal Development". He argues that higher mental abilities could only develop through the interaction with more advanced others. This means that interactions with others affect higher order thinking which involves understanding, applying, analyzing, evaluating and creating. Individuals can with the help of a more experienced peer, master concepts and ideas that they cannot understand on their own (Vygotski; 1978). Students work in groups and cooperate together to do a certain task. They listen to one another and engage in a meaningful and rich discussion; this ensures a deep and sustained learning process. Learners are required to be flexible and helpful in working with their peers towards achieving a common objective, and they should show willingness to make necessary compromises as "The pacific policy research center" (2010) suggests.

In addition to that, the results concerned with the investigation of teachers points of view about whether this method IBL help teachers to develop communicative skills in their learners showed positive opinions with 100%. As it happened, they claim that it pushes them to practice more since this method is based on student's participation during their learning process, many researchers confirm the views of the asked teachers. Among them we find Jerome Bruner who is primarily concerned with making education more relevant, he argues that teachers could accomplish this by allowing their learners to actively participate in the learning process. Hence, in order to have a productive inquiry; the facilitator should provide an opportunity for all students in class to think,

engage, and communicate their findings in order to reach good discussions and arrive at a useful conclusion which allow them to explore new ideas, as it is clearly confirmed by the teachers answers in pie chart 09. For instance, involving the shy students in the lesson, giving them extra support, creating a comfortable environment so that they feel free to ask questions and share their findings. When students communicate with each other they communicate ideas and meanings where they have the opportunity to work with ideas and experiences of other students. This is also supported by Dewey, who claims in his book Democracy and Education that "communication is a process of sharing experience till it becomes a common possession". By sharing ideas with their peers, students are more likely to learn from one another and understand one another's ways and perspectives.

As it was mentioned in the previous chapter, in the illustrated pie chart, teachers with whom we have conducted our research work, have responded positive opinions (90%) that students share their new understandings in a variety of ways through presentations. According to Asselin et al. (2003), it is better to have unexperienced researchers to be involved in a small group sharing rather than having each individual student share their work with the whole class as it is more successful and time-efficient. In other words, teachers should involve students in the learning process by promoting their engagement through active learning so that they could learn how to communicate, interact, participate, and share their knowledge.

A presentation would be beneficial for the target audience to get new insights about the subject matter. This is the most important stage for learners, which is based on their understanding, explaining, and interpreting concepts in order to engage in a conjoint activity. We can deduce this from, Dewey's work Democracy and Education, where he claims that the individual becomes more familiar with its methods and subject

matters, acquires needed skills, saturated with its emotional spirit by doing his share in the associated activity. This can be interpreted by the fact that when things enter into actions, it enhances and enriches the learning process and there must be a large variety of shared understandings and experiences. It is better for inquirers to be equipped by learning material tools such as books, magazines, and newspapers related to the topic under study. On the other hand, we have found a small number of informants who have a negative viewpoint about this question; this can be explained by the fact that some students do not trust themselves and afraid about being rejected, they feel also that their own perspective is not valuable. This kind of learners should be encouraged by teachers as they help them how to engage directly in a shared situation or experience.

Competencies should be developed in a gradual way by means of valid evaluation of one's strategies. As it is revealed in the previous chapter, most of the teachers (88%) with whom we have conducted our research agree with the idea, and a minority (12%) of them half-agree. We can explain that by the fact that teachers must take steps to improve the learning process. Here the role of the teacher is vital in teaching students the different techniques that can be used to select and choose the appropriate data. This view goes hand in hand with the retrieving phase stated in the literature review which stresses the importance of the facilitator's guidance. Students are expected to be able to master the lectures' aspects in return, as well as measuring skills like communication, critical thinking, interactions, and problem solving are crucial elements in developing competencies by implementing inquiry based-learning phases that support and deepen their understanding of the content when engaging in an inquiry activity.

We have found in the collected answers, teachers stated that competencies progress step by step through communication, interactions and also through sharing ideas and understandings. Others claim that students should plan for their research topic

and choose the appropriate resources in order to take the needed information. This would be achieved by learning assessment strategies that teachers use to improve students understanding and help them to become self-directed learners, these strategies help inquirers to assist them in making connections between what they already know (their prior knowledge) and what they will learn.

David Calemon, in his seminal book (1995), defined assessment for learning as any activity which seeks to gather evidence on how well pupils have mastered specific aspects of subject matter. This definition goes hand with the evaluating phase of the inquiry model presented in the review of the literature. This means; a well-designed-assessment methods provide valuable information about student learning employed by the facilitator to evaluate their students. Inquirers also evaluate themselves by analyzing their own performance in a given activity, students who self-assess will examine their current level in order to see how they can improve , this is also suggested by our informants who said that students can assess their work by using rubrics and checklists.

They can also evaluate their work by peer assessment which is a type of performance evaluation that is done by a group work to receive valuable feedback from each other. The work of many scholars among them Victor Delclos, M. Susan Burns and Nancy J. Vye (1992) defined assessment as a process for documenting in measurable terms, the knowledge, skills, attitudes, and beliefs of the learner. According to the results of this study most teachers agree that students can assess themselves through rubrics and checklists.

Creating rubrics and checklists is very important for inquirers as seen in the previous chapter Q11, to evaluate their learning process and objectives which contributes on students learning skills that results on the education development. This is in accordance with Koshirbayeva Aigerim, doctor of education, in her article entitled

"Student competency level evaluation on the basis of competence centered tasks" who stated that, the system of evaluation of educational achievements of students is an important factor in integrating the educational space, the primary means of diagnosis and correction of problematic situations, is considered as a tool for the relationship and interaction between teachers and students in the educational process. This confirms the importance of evaluating students' competencies based on their learning step by step determined by the mastery of inquiry model.

As we notice in pie chart 10, it shown that all the participants have a positive point of view about students' reflection on their learning and talk about their progress in order to get valuable feedback, they asserted that they agree with this idea, since IBL helps them discuss ideas, experiences with their mates and talk about the improvement they make to get valuable feedback from their teachers. Indeed, this goes hand in hand with Dewey's Democracy and Education where he introduced the point of reflection in experience. He stated that thoughts or reflection is the discommend of the relation between what we try to do and what happens in consequence and no experience having a meaning without some element of thought.

In an inquiry-based classroom, students should review and think back on what they have done and start questioning; what they are learning, why they are learning it, so that they will be able to get valuable feedback from their facilitators. This method allows them construct their knowledge and learn from mistakes until it happens in a correct way in order to apply it for future experiences. Moreover, students practice reflective thinking to identify ways to improve their approach to learning, they reflect on their experiences, knowledge, and learning process in relation to their objectives. By doing so, for Instance, students who are expected to work on a certain research project collaboratively, they engage in an inquiry activity when they investigate questions,

problems, plan their topic, gather, interpret, explain information and then reflect their process in order to reach good conclusions based on evidence. This results on the effectiveness of brainstorming on collaborative work.

According to Jarwan (2005), brainstorming means the use of the brain for active problem solving and the brainstorming session aims to develop creative solutions to problems. In this respect, Al-Khatib B. A. (October 2012), stated in his article that the major purpose of brainstorming as a teaching strategy is to foster and enhance communication skills, help to promote thinking and decision-making skill as well as foster different viewpoints and opinions, it may be equally used in all areas of learning. For example, learners can solve complex problems through mind mapping which is a helpful tool for both teachers and students to improve the information gathering.

Ultimately, from the analysis of the answers provided by teachers with whom we have conducted our research we have figured out that all of them share the same opinion in relation to students' evaluation their final product where they supported the use of checklists and rubrics. In this sense, students need to evaluate how their inquiry skills can progressively developed throughout their learning process. Students need to assess one's progress and areas that need improvement in relation to the inquiry model. As we have mentioned in the review of the literature, evaluation phase encourages students to assess their understanding and provide opportunities for teachers to evaluate student progress in any given activity. Additionally, collaborative learning activity is an essential component, because when it comes to evaluate their final product they visualize their thinking and look collaboratively for solutions to the question; they will come up with a valid evaluation. In this context, Alberta Learning (2003), has introduced key strategies to the evaluating phase; it stated that students will be more successful in inquiry when teachers provide in the context of a classroom activities,

opportunities for students to reflect on their knowledge, talk about their process use rubrics and checklists to evaluate their product and process.

Conclusion

This chapter has discussed the main results obtained from the questionnaire administered to EFL teachers at MMUTO in order to answer the research questions stated and the hypotheses set in the general introduction about teachers' attitudes towards inquiry based-learning learning and its implementation at the Department of English. The results obtained have been presented in the form of quantitative data, percentages and numbers using diagrams to illustrate and qualitative data in textual form. After presenting the findings of each part, they have been analyzed in the light of the review of the related literature, our analytic framework, and the previous empirical studies that support this approach as an opportunity for students to experience learning through inquiry and problem solving, characterized by the six phases; planning, retrieving, processing, creating, sharing, and evaluating

The results show that IBL approach leads to better student engagement throughout the classroom activities, it appears more successful when the facilitator adopt the guided inquiry method of instruction, to develop students' competencies to work collaboratively, communicate, think critically, and reflect on their process to get a deep understanding of the lectures' concepts. Therefore, most of the teachers confirm the hypothesis provided in the introduction and they support the implementation of IBL approach in our department to enhance the learning process.

General conclusion

The current study has explored teachers' attitudes towards inquiry-based learning and its implementation in the Department of English at Mouloud Mammeri University of Tizi-Ouzou. In order to attain the aims of the present study by answering our research questions and checking the hypotheses set in the general introduction, a questionnaire was used as a research tool to collect data. In doing so, we relied on the mixed methods, that is to say, the combination of both quantitative and qualitative methods for data collection and analysis. The questionnaire was distributed to 25 teachers and contains 22 questions; some of these are closed-ended and some others are open-ended for the sake of a profound and exhaustive investigation of teachers' views and practices.

The findings have revealed that most teachers find this approach an important one to adopt during the learning process due to its effectiveness. In addition, the results of the questionnaires have revealed that the majority of the informants rely on inquiry-based learning, though at varying degrees. Yet, some of them find it difficult to engage their poorly equipped learners in such an approach. This attitude confirms our hypothesis about learners' reluctance to get involved in inquiry-based learning practices in a non-supportive environment. According to the results discussed in the previous chapter, many teachers find of inquiry-based learning a successful approach for learning to take place, but they find some obstacles in implementing it. This confirms our second hypothesis set in the general introduction of the dissertation.

The results of this study have also revealed that teachers unanimously agree about the importance of IBL, but they face difficulties in implementing its principles and assumptions with classes that contain forty-some students. They consider that it is time consuming, and so they prefer to go directly to the point by giving lectures and thus by 'spoon-feeding' their learners. This, again, confirms the third hypothesis that we have

set in the general introduction. Accordingly, special attention is needed at the Department of English of MMUTO, where many teachers who express support for a constructivist view, which may be perceived as desirable, also accept direct transmission and information delivery views. It may, therefore help to raise awareness of the difference between these positions in the course of teacher education and through study days and in in-service training courses, if any.

It should be kept in mind that putting constructivist pedagogical ideas into practice necessitates teachers' willingness to practice principles of constructivist pedagogy; there by examining technical aspects of teaching. In other words, the teachers referred to as 'resistant' practitioners should, for example, start a lesson with direct teaching and gradually move to more demanding activities. By more demanding activities, we mean problem-solving situations and inquiry tasks. They could also make students practice tasks that require critical thinking and make them conduct team work.

During the investigation, we faced some problems that prevented our study from bring exhaustive and well informed. It is hoped that this work will inspire other researchers to investigate in this research area and find other concepts related to this approach like the effects of IBL on students learning skills or the impact of this approach in improving students' creativity. They can also examine IBL in EFL classes through classroom observation.

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