

وزارة التعليم العالي والبحث العلمي

MINISTERE DE L'ENSEIGNEMENT SUPERIEUR ET DE LA RECHERCHE SCIENTIFIQUE

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FACULTE DE LETTRE ET DES LANGUES كلية الآداب و اللغات

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DEPARTEMENT D'ANGLAIS



**Domaine :** Lettre et Langues Etrangères

**Filière :** Langue Anglaise

**Spécialité :** Langage et Communication

**Dissertation Submitted in Partial Fulfillment of the Requirements**

**For the Degree of Master in English**

**Title:**

**Teachers' Attitudes towards Inductive Teaching:  
The Case of the Department of English at Mouloud Mammeri  
University in Tizi-Ouzou**

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**Promotion :September2018**

N° d'Ordre :

N° de Série :

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Laboratoire de Domiciliation du Master : Etude des langues et Cultures Etrangères

# Dedication

*To all the beloved ones*

*To my father Mohammed and mother Djediga*

*My brother Mouloud*

*My sisters Sonia and Taous*

*To all my friends*

## Acknowledgments

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This work would have not been possible without the support and encouragement of many people.

First, I would like to express my deepest gratitude and appreciation to my supervisor Mrs Tafroukht Zouhra for her insightful comments, support, guidance and precious advice that she gave me during all the research process.

Special thanks to all the members of the board of examiners who saved no time to read and examine this work.

I would like to thank Mrs Berdjane and Mr Aouine Akli for their help.

## **Abstract**

*The present study is mainly concerned with teachers' attitudes towards inductive teaching in the Department of English at Mouloud Mammeri University of Tizi Ouzou. It is intended to show the types of attitudes towards the inductive teaching. It also attempts to determine teachers' implementation of the inductive method to help students to carry out their study of the English Language. In addition, the advantages of inductive method are clearly shown to prepare students for every day communication. It uses Vigotsky's theory of Socio Constructivism (1978). In order to collect the relevant data for this research two instruments which are the questionnaire and the interview are used. The study, in fact, combines quantitative and qualitative methods. The twenty three (23) questionnaires collected from teachers were analyzed through statistical analysis and the six interviews were transcribed and analyzed following the content analysis. The results obtained demonstrate that though the majority of the teachers don't use the inductive method at the present time, they hold positive attitudes towards its use. Furthermore, it was found that most teachers stressed the importance of this method in the educational process and easy in their teaching. The conclusion drawn from these findings is the lack of materials, learners' anxiety and time consuming .*

**Key words:** *Inductive Method, Attitudes, Socio Constructivism, Cognition, Feedback.*

## **List of Abbreviations**

- EFL: English as a Foreign Language
- ESL: English as a Second Language
- H: Hypothesis
- IBL : Inquiry Based Learning
- PBL : Problem Based Learning
- QCA : Qualitative Content Analysis
- SC : Socio Constructivism
- UMMTO : University Mouloud Mammeri of Tizi Ouzou
- ZPD: Zone of Proximal Development

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## **General Introduction**

Language plays an essential role in the life of every individual. Learning English as a second or foreign language takes a great place in the field of education. Researchers and scholars noticed that many changes occurred in teaching methods and approaches in accordance to learners' needs. In that sense, they attempt to look for the most useful teaching methods to accomplish the learning process. So, among the important models of teaching that affect students' learning is the inductive method. Thanks to the inductive method there is a shift in paradigm from the traditional deductive method to the inductive one that has led to change teachers' and learners' role. In other words, the teacher is no more the authority and the only source of information in the classroom but he/she is considered as a facilitator who guides the students to understand the rules by themselves. For this reason, learners are no longer the passive recipients but active participants involved to construct their own knowledge (Chalipa, 2013).

Following the inductive method, the student is exposed to a set of contextual examples of language and then he or she is required to analyze them in order to derive a clear understanding of the rule. That is, student induces grammatical rules thanks to teachers' instances provided to help them reaching successful communication (Thornbury, 1999:49).

Furthermore, learners are trained to be familiar with the discovery of rules to enhance learning autonomously. In the field of language teaching and learning, Nunan (2003) argues that the inductive teaching allows learners to get samples of language through a process of discovery to find out the rules all alone.

Many studies emphasize the importance of inductive teaching. Among them (Vander Walt, 1990, Harmer, 1995 and Halliday, 1995). They claim that the teacher is well prepared in order to achieve objectives by having the ability to facilitate learning as acquiring the basic teaching methods and the necessary means are of great importance to assess the syllabus and

lesson plans to present the learning process. Hence, the attitudes are characterized to be positive towards the inductive method. In contrast, some teachers prefer to use the traditional lectured instructional method. This is due to their attitudes that may be negative towards the inductive method. Within this regard, some teachers comment that “when aiming at a particular structure in writing exercises, it would sometimes have been easier to give a short grammatical outline of the structure to avoid students’ persistent flaws” (Abrahamse, 2016:27). Thus, they show resistance to change their attitudes.

In recent years, a large number of studies have been conducted on inductive approach and the deductive approach in the work that was conducted by (L. Gorat and V.L. Prijambodo, 2012) reveals the effect of using both of them to teach English to students to master conditional sentence.

As far as the Algerian context is concerned, there are few studies carried out on the issue of the inductive method. For example, we find the Master dissertation conducted by Lydia Mammeri (2018) on investigating the application of inductive approach on teaching writing skill in the Department of English at Mouloud Mammeri University of Tizi Ouzou. However, no research has been yet conducted on teachers’ attitudes towards inductive teaching relying on the constructivist theory used by Vigotsky (1978). This is what makes of it interesting subject to be investigated. So, our work attempts to find out what are the methods teachers implement in their teaching and why others tend to implement the inductive method rather than the deductive one. Moreover, we attempt to explore teachers’ attitudes towards the inductive method through conducting a case study in the Department of English at Mouloud Mammeri University of Tizi Ouzou.

### **Aims and Significance of the Study**

The overall aim of the present research is to determine teachers’ attitudes towards the inductive method that enables the students to master the English language. In order to reach

our aim, two main objectives are set: the first objective is to find out the reasons for using the inductive method by teachers. The second one is to show clearly the main advantages of using the inductive method. Indeed, we have chosen teachers of the Department of English at Mouloud Mammeri University in order to check the importance of the inductive method to make the teaching and learning successful.

It is worth conducting such a study at the level of the Algerian higher education because the inductive method has received little interest. The significance of this investigation is that the inductive method is crucial as it prepares students to communicate and exchange ideas in real life situations by using their cognition since they are responsible for their own learning and become critical thinkers as well.

### **Research Questions and Hypotheses:**

The aim of the study is to give an answer to the following questions:

- 1) What are teachers' attitudes towards the inductive method in the Department of English at MM UTO?
- 2) To what extent teachers use inductive method to satisfy students' needs?

To answer these questions, we have suggested the following hypotheses:

**H1.** Teachers' attitudes are positive towards inductive teaching.

**H2.** Teachers use inductive method to satisfy the students' needs to a significant, great extent.

### **Research Techniques and Methodology**

The study adopts the mixed method to analyze the data. We have related both the quantitative and the qualitative methods to collect and analyze the data in order to discover teachers' attitudes towards inductive teaching at Mouloud Mammeri University in the Department of English in Tizi Ouzou.

The research data has been collected using a questionnaire that allows gathering numerical data through statistics to understand and complete the interview given to teachers. First, for the quantitative part, we have opted on a descriptive statistical method relying on the rule of three to get the result. And for the qualitative part, it explains the results obtained from the questionnaire and the interview that contain open ended questions through content analysis.

### **Structure of the Dissertation**

This dissertation follows a traditional simple type. It contains two parts: the theoretical and the practical parts. It consists of a General Introduction, four chapters, and a General Conclusion.

The General Introduction presents the reasons for choosing the topic, the statement of the problem, the aim and significance of the study, research questions and hypotheses, research techniques and methodology and the final step is the organization of the dissertation.

The first chapter is the Review of literature in which we are going to define some concepts related to the topic under study and the theoretical framework related to the study. The second chapter is Research Design that introduces the procedures for data collection and analysis. As for the third chapter, we present the findings that show the statistical presentation of the results and present the data gathered from the research tools which are the questionnaire and the interview.

In the fourth chapter, we discuss and interpret the findings to provide answers to the research questions and confirm or reject the hypotheses. The results are discussed in relation to theoretical framework. Lastly, the General Conclusion provides a summary of the different points tackled through the research.

## **Review of the Literature**

### **Introduction**

This chapter investigates teachers' attitudes towards inductive teaching in the Department of English. It contains three sections. First, it seeks to define and explain key concepts that are related to the inductive approach, attitudes associated with its dimensions. In addition, the foundations of the inductive approach are explained: constructivism, cognitive approach, and intellectual development approach with learning cycle. Second, the importance of the inductive teaching is discussed, its benefits and the problems found while teaching inductively, the types of the inductive method. Third, the theory of constructivism is taken into account.

### **I. Attitudes**

#### **I.1. Defining Attitudes**

Attitude is derived from the Latin "*aptus*" that means "*adaptedness*" or "*fitness*" (Allport, 1935). It is a word more common in the field of art at the beginning to refer to visible posture. Later on, it is associated with the field of psychology to describe it as a mental concept that guides an individual to conduct a new experience (Morgan, 1934:47). To be clearer, an attitude is defined as "*a set of complex feelings, desires, fears, conviction, prejudices and other tendencies that have given a set of readiness to act to a person because of varied experiences*" (Chave, 1928:23). Therefore, thanks to attitudes, we can get a clear insight of an individual that determines an activity or action to be real and social. In this sense, attitudes involve more a position of mind rather than of the body (Nedjah, 2010). To be clear, everything occurs in the minds of individuals that differ from one to another with different particular situations. Moreover, Allport is one of the important figures in social Psychology

that defines attitude as “*a mental and neural state of readiness, organized through experience, exerting a directive and dynamic influence upon the individual’s response to all objects and situations with which it is related*” (Allport, 1935: 810). In other words, this definition shows that attitude occurs within the mind in forms of reactions towards a situation. However, Icek Ajzen (2005:03) argues that “*an attitude is a disposition to respond favorably or unfavorably to an object, person, institution, or event*”. That is, an attitude can be much connected with the teachers and how they teach in the classroom (Olson, 2011).

## **I.2.Dimensions of Attitudes**

There are three types of attitudes: beliefs, feelings and behaviours. They are interrelated dimensions of attitudes (The International Dictionary of Education 1977: 32). It is evident that teachers reinforce their beliefs and feelings consciously and unconsciously about a person, event or object thanks to experience and maturation (Ardweg and Van Den Aardweg, 1988:26).

### **a. Beliefs**

Pajares (1992:313) claims that after doing a survey for teachers’ beliefs in education, he recognizes that belief plays a crucial role to organize either information or knowledge as well as belief defines and clarifies behaviour. Besides, this scholar says that belief is an effective type of attitudes as simply it “*contains knowledge, affect and behaviour*” (ibid).

Beliefs are qualified as mental because they determine and produce teachers’ experience. Moreover, beliefs try to form practices that are done by teachers (Johnson, 2004). Thanks to beliefs, teachers are able to orient their behaviours and thoughts (Borg, 2008).

This dimension is effective as it builds a sense of truth and reason for teacher so as to control their behaviours in the classroom (Prablu, 1992, cited in Clemente, 2001: 50). To be

more specific, thanks to the existence of beliefs that teachers are able to use their knowledge with confidence in the classroom related to the principles of teaching approach they practise.

### **b. Feelings**

Feeling is another well known component of attitudes. It means “*emotions*” (Van den Aardweg, 1988: 262). In the Dictionary of Education (1977: 14) feeling is defined as “*Those aspects that emerge from experience and behaviour such as the teaching experience will develop emotions in them*”. In other words, due to the teachers’ experience with their behaviours in the class, feelings exist. Hence, feeling is prominent to help in implementing any language approach. To reinforce this idea, Fishbein (1970) made three experiments in order to find out teachers’ feelings or to declare that an individual’s intention contributes to act in a given situation while following an approach to teach in ESL classes particularly in Zimbabwe .Also, attitudes needs each individual to modify either his or her behaviour or feeling so as to implement another approach and become easier and successful one (Young and Lee 1984 , Hargreaves and Fullan, 1992 , cited in Kennedy , 1996).

### **c. Behaviours**

Eiser (1984:66) argues that

Thanks to feelings and beliefs that behaviours will be more or less accepting adds that we need to understand better teachers’ beliefs and their feelings in order to know what specific method to apply to make the teaching and learning process successful.

It should be mentioned that the three dimensions occur at once to build attitudes that through it, we are able to observe behaviour in a clear way (cited in Mohammed Al Mamun, 2006).

As regards attitudes, it is easy to understand this concept except if the sentences that teachers use and their behaviours are analyzed because they influence on teachers’ performance and their decision making (ibid). Research shows that teachers have already

ideas and attitudes before starting their profession as well as the experience is involved. That is, other teachers and learners help them to construct their own performance in the classroom (Prablu, 1990; Freeman, 1990; Wallace, 1991 and Hargeaves, 1992 cited in Clemente et al 2001:48).

### **I.2.1. Teachers' Attitude**

Teachers play an important role to develop the language and skills for the learners. Positive attitudes and actions can change completely students' life. According to Chastain (1998) positive attitudes push the teacher to get a set of emotions towards not only themselves but also towards the classroom, by creating a good atmosphere to learn the language they speak and the culture of that language used. All these improve the quality of teaching and learning. In this respect, in order to promote learners' positive attitudes, teachers' job is not easy, since they should fit students' needs and helping them to develop self confidence with cooperative attitudes by listening to them attentively. Besides, they should provide clear feedback while teaching and explaining the data in order to foster and develop their intrinsic motivation and capacities by making assumptions to learn and ameliorate their skills (ibid). Brown (2001) claims that due to teachers' role and the style they use with the available equipments in the classroom, students are enthusiastic, active and full of energy. Hence, the teaching is satisfactory, effective and efficient (Hemaloshinee, Vasudevan, 2013). To be clear, the teachers themselves are motivated towards their profession, so they establish a good relationship in the classroom by providing advice when students need it.

Researchers have also noticed that the study of efforts, age and the relationship between the learner's style and the teacher's style is a good and positive element to render students more proficient. Therefore, teacher's commitment is a prominent work attitude that leads individuals willing to work harder to achieve goal and remain employed (Kreitner and

Kinicki, 2007). Said differently, thanks to teachers' appropriate feedback given to learners, students' behaviour are influenced by the nature and the quality of their teachers student relationship (Jones, 1981).

In the area of education, Blackorby et al (2003) confirms that instructors are the ones who are concentrated to pay attention to students' participation in the classroom and not only the homework and attendance are taken into account to judge their proficiency or performance. So, thanks to teachers' commitment and their used strategies, learners become highly proficient, this means that, they are creative thinkers and engage actively in the learning process. However, some scholars assert that *"the lack of understanding of teachers towards creativity and their unconsciousness of the term creativity make them not able to classify the creative learners"* (Torrence 1968, Renzulli, 1993:4). Thus, teachers don't give the creative learners much attention and don't encourage them in the way they deserve (Gatzels and Jackson, 1962). *"All these discourage the value of creativity"* (Hosseinee, 1997), and go against creative teaching (Cropley, 2001, cited in Mellow, 1996:149-159). Thus, windows are open for teachers to follow educational programmes to become innovative to teach and learn in a good and clear way.

To sum up, the teaching and learning process achieve high level of success if teachers' attitudes are characterized to be positive.

### **I.3. Defining the Inductive Approach**

According to Prince and Felder (2006:123) *"Inductive approach is a preferable alternative that begins with a set of observations or experimental data to interpret, a case study to analyze or a complex real world to solve"*. In other words, teachers start to expose students to examples and from these examples they try to understand the rule (Thornbury,

1999). Furthermore, *“Inductive approach refers to the style of introducing language context including the target rules where students can induce those rules through the context and practical examples”* (Azmi and Hanna, 2008:3). That is to say, the inductive approach is used to create a situation through examples that teachers provide to make generalization where students should discover the rules for themselves with teachers’ help. For this reason, that most experts as Rutherford (1987) and Sherwood (1988) support the idea that the inductive approach can be called *“discovery learning”* by presenting different models of ‘Grammar Consciousness Raising’ associated with the role of EFL acquisition (cited in Harmer, 2001:160). For example, the present perfect tense is better taught by exposing students to examples and then let them induce the rules by themselves and be aware of how to use them instead of giving them explicitly (ibid). In that sense, Mautone (2004 : 33) says that *“with an inductive approach, teachers show their students a series of examples and non examples, then guide them towards noticing a pattern and coming up with concept rule”* (as cited in Azmi and Hanna , 2008: 3).

Rice (1945) adds that inductive instruction determines the role of teachers to help students *‘learn’* rather than *‘teach’* inside or outside the classroom through discovery and autonomous learning in order to improve their performance (cited in Wang, 2000).

As regards the inductive method, Prince and Felder (2006:02) claim that *“Inductive teaching and learning is an umbrella term that encompasses a range of instructional methods, including inquiry learning, problem based learning, project based learning , case based teaching, discovery learning and just- in- time teaching”*. They all share the point that they are characterized as inductive methods. In addition, they all student centered as *“it helps learners to realize their unconscious, awareness about the English grammatical structures and make them conscious about it”* (Chomsky, 2002).

#### **I.4.The Deductive Approach**

Many scholars are interested to define deductive approach among them Carr. He states that “*deduction is seen as form of reasoning in which one proceeds from general laws to specific cases*” (2009: 47). That is to say, “*there is a shift from consciously formulated rules to the application in language use*” (Decco, 1996:96). In addition to that, it should be mentioned that the deductive method is characterized as a safe cognitive technique to learn a given language as simply students just follow the rules to give specific examples, so they don't make a lot of mistakes because the teacher has already given and explain the rules with confidence. Therefore, the teacher is centered and students follow what the teacher explains.

Deductive approach is an approach in which teachers offer an explicit presentation of the grammatical rules and then giving practical tasks to students in form of translation and drills (Pajunen, 2007). It begins from using the knowledge from general to specific (Widodo, 2006). Moreover, teachers in this approach traditionally explain and interpret language forms to facilitate the job for learners and but they don't have the opportunity to produce in their own words (Pajunen, 2007). In fact, Smith (1990) adds that deductive approach can lead to extensive learning that means it focuses more on the quantity of information rather than helping students to acquire language naturally. So, this hinders the student to become active in learning the second language particularly if the mother tongue is involved to better explain the rules of the second language.( Sarosody, Farezady, Beneze, Poor, Vadnay, 2006:74) assume that,

deductive approach involves a teacher lead presentation (explicit presentation) where he/she explains simply clearly the grammatical structures and examples are given by showing what they mean and how they work allow students to develop their understanding and use them in their own. That is, if the structure is the present perfect, the teacher would begin the lesson by saying “today we are going to learn how to use the present perfect structure”. Then, the rules of this tense would be outlined in a simple way, at the same

time, the students complete exercises in order to understand better and know how to use the structure.

#### **I.4.1. The Role of the Inductive Method**

The inductive method is important for learners to find out the rules (Hedge, 2000:54). The fact of discovering the rules for themselves is more appropriate for their existing mental structures. Therefore, the mental effort makes rules ‘*meaningful, memorable and serviceable*’ (ibid). Generally, the learners are not passive but more active, motivated and attentive as simply they almost do everything by being autonomous while learning. Also, inductive approach “*deals with the ability to rediscover students’ subconscious knowledge of English Grammar, and become conscious to induce abstract rules from the data of the language rather than imitation*” (Chomsky, 2002). In brief, an inductive approach guides the learner to develop their own abilities all alone (as cited in Wong, 2011: 178).

#### **I.5. Types of Inductive Method**

##### **a. Problem Based Learning**

Problem based learning is not an easy instructional method to implement as it requires subject that means teachers needs to get expert knowledge and skills and students confronted with an open ended, ill structured, authentic problem and work in teams to identify learning needs and develop solutions with the instructor that acts as facilitator rather than being the one who just gives information (Barrows, Tamblyn, 1980 and Duch, Allen, 2001).

Class time may be devoted to:

- Groups: while working in groups learners show amelioration as simply they they base their own learning on what they have already done.

- Mini lectures: all groups are given information that is related to a given topic and they discuss the difficulties they find and they also suggest solutions.
- Whole class discussions: it guides students to use methods and content of the course so as to give illustrations, concepts and principles and induce all these for themselves instead of getting them directly from the instructor to understand clearly the matters (Duch, 2001).

### **b. Inquiry Learning**

Inquiry learning involves students to be given questions in order to answer, problems to be solved and a set of observations to be explained (Batteman, 1990). That is, students should learn how to formulate good questions and if they are able to identify, gather evidence, formulate and evaluate the worth of conclusions, the method is considered to be successful. In other words, inquiry learning (IL) refers to the teaching that uses questions and problems to provide an appropriate situation in order to learn.

Inquiry learning has techniques that are different according to Staver and Bay (1987)

- **Structured inquiry:** the teacher gives the student a problem with its outline of how to solve it
- **Guided inquiry:** the solution must be sorted out by the students themselves.
- **Open inquiry:** it is where students must formulate the given problem all alone.

Lee et al (2004) report that inquiry based courses had desired student outcomes at North Carolina State University.

1. Improved critical thinking skills.
2. Great capacity for independent inquiry.

3. More responsibility for one's own learning.
4. Intellectual growth.

Colburn ([w.ww.csulb.edu/acolburn/AETS.htm](http://www.csulb.edu/acolburn/AETS.htm)) said that inquiry based methods are necessary as they help students to understand concrete observational phenomena and on the way scientists explain that phenomena. Also, activities are stressed by using contextual materials to make students get the knowledge and skills to succeed but if students are seen to be challengers, teachers help them to develop better their thinking skills.

#### **d. Project Based Learning**

Project Based learning is “*the culmination of the project is normally written and or oral report summarizing the procedures to produce the product and presenting the outcome*” (Prince and Felder, 2006:8). In other words, project based learning (PBL) focuses on students to choose their own project independently by using their own strategies as Mr Fodil Sadek did in the module of Language and Communication. In fact, he proposed some projects to be done in pairs and they are considered as lessons that are done. So, students are motivated to look for further information to master better the topic and doing their best to transmit easily the message for both teachers and other students and acting as they are teachers and getting good marks. At the end, students and the teacher asks some questions that are not clear for them to the ones they have already performed to know if they really able to speak spontaneously and render things clearer to the receivers.

There are three types of projects according to De Graaf and Kolmos (2003). First, Task project is one type that allows students to work in teams after the projects are explained by the instructors; however, students become not more motivated to develop their skills. Second, discipline project is when the teacher first provides a clear outlook (the subject field)

about the projects by using general concepts so as to make students find the specific project. Third, problem project means students to choose their project independently.

#### **d. Case Based Teaching**

Case Based Teaching is a type of teaching pushes students to analyze case studies of historical situations that involve solving problems and making decisions. That is to say, students may study the case related to time and be prepared to discuss it in the classroom but it should be well structured, authentic and have rich contextualized details as the teacher presents several simple non complex cases that students can engage in a short time with a goal of introducing them to authentic professional scenarios with effective research methods. Besides, it depends on how it is implemented because this type of teaching is qualified as inductive (Felder, Michael, 2006).

#### **e. Discovery Learning**

In discovery learning , the learner answers the questions that are given and solve problem and give explain observations and then work in a largely self directed manner to complete their tasks and make inferences from the outcomes and the teacher at the same time gives the feedback depending on their efforts and guide and direct them (Michael and Richard, 2006). In other words, students are asked to find the rule when looking attentively, for instance at these sentences: I write on the board, students listen carefully to the teacher, one student asks questions. Once the teacher finishes from writing them at the board, he says there is a final S on the verb only with certain subjects, what are they?, students answer through noticing and analyzing these examples. After this step the teacher says “Now apply the rule”! by providing them other further activities for practice as circling the correct verb. Hence, teacher’s feedbacks and guidance are of great importance.

## **f. Just in Time Teaching**

Learners are encouraged to get prepared for class regularly by using the automated online system as thanks to it learners become active in the classroom (Felder and Michael, 2006).

The teacher repeats this process several times a week in the way that every student completes web based assignment before their class in order to answer the questions and the teacher reads through their answer before class to prepare the appropriate lesson for them (ibid). A good example of just in time teaching is E-Learning that is used at the Universities.

### **I.5.1. Advantages of Inductive Method**

Brown (2001) said that the inductive method is more suitable as it is considered as similar to Natural Language Acquisition where rules are learned unconsciously. Furthermore, it makes the learner communicating the language instead of just being exposed to lot of rules that may become annoying. Also, while implementing the inductive method the learner builds a kind of intrinsic motivation since simply he enjoys participating in discovery rather than listening to the lesson made by the teachers. In addition, making mistakes can occur while learning a language naturally as well as the learner is less dependent on teacher and thinks that learning a grammar is not a difficult issue and not only the teachers tell him how to do it (ibid). Thus, induction involves an active and independent style.

Ke (2008:16-17) gives some benefits of inductive method. First, an inductive method is based on English native speakers and advanced English learners 'subconscious knowledge of English grammar since the sentences used have a structure to *'establish'* and rediscover a set of grammatical rules that underlie their competence in grammar. For instance, the teacher needs to begin drawing one student with his name X on the board to teach the comparative form by saying he is tall, then he moves to another taller figure next to the first saying by

name this is Y. Or, Y is taller than X. In this way, The teacher would then give many examples using students and real items from the classroom that are linked to their daily life in order to make students understand how to use correctly the structure and encourage them to practice other meaningful illustrations either in pairs or groups after they have induced the rule. Second, the inductive method allows students to be more active when they learn grammar because they check, test and revise these rules rather than waiting for the teacher to give directly the rules without understanding the reasons for using them. Third, thanks to this method, learners are capable to construct and understand the rules in a simple, logical and consistent way. Furthermore, Gollin (1990) states that inductive method is “*a bottom up*” approach that means the learner is responsible for his own learning (as cited in Mallia, (2014:222).

In addition to that, several studies go with the idea that inductive Approach achieves success by deepening students’ comprehension and Yonie (1974) confirms that students remember better when learning inductively. Thanks to inductive approach, there is some aspects of reason as observing, measuring and collecting data and students have the opportunity to use illustrations, sentences to ameliorate how they understand the matters in learning, as well as the inductive method is seen as a result of the reaction to deductive approach where the students are able to understand and generalize rules thanks to examples practiced found on the board in order to give their feedbacks using language in different contexts (ibid).

### **I.5.2. The Barriers of Inductive Method**

Though inductive is beneficial in the learning and teaching process, it has some drawbacks. According to Chalipa (2013: 2). First, “*the time and energy spent in working out*

*the rules may mislead the students to believe that rules are objectives of a language learning rather than a means*”. That is to say, this method involves spending a lot of time in more finding out the rule than using and practicing the language .Second, students may suggest wrong rules that can be whether too narrower or too general to apply it, and if the hypothesis is not testing in an open way through examples, this is a danger (ibid).Third, an inductive approach can demand heavy tasks on teachers to plan a lesson. In other words, they need to choose and organize the data carefully to guide them to an exact formation of rule (ibid). Finally, the inductive method renders students feel annoyed especially those who have personal learning style or a past learning experience. So, it is better for them to be told the rules at the beginning rather asking them to sort out the rule themselves. In short, this method is seen more suitable for advanced students (ibid).

### **1.5.3. Foundations of Inductive Teaching and Learning**

#### **a. Constructivism**

Constructivism says that *“people construct their own understanding and knowledge of the world through experiencing things and reflecting on those experiences”* (Thirteen Ed Online, 2004, cited in Christie, 2005:06). To be clear, thanks to the experience we obtain knowledge and reformulated it in our own words, so learning is an active process that search to interpret how a person sees the world (Christie, 2005).An example of that is the case of a child who is born with his family and society to learn from them. He also becomes an active agent in developing his own knowledge through many contacts with teachers and classmates when going at school. The aim of this is to strengthen the child’s personality to become independent in the society where he lives.

In the same line, Christie claims that constructivism ensures problem solving and gaining clear insights by using “*authentic tasks, experiences and settings assessments where the content is always presented holistically not in separate smaller parts*”. That is, constructivism aims at solving problems related to daily life situations when the teacher explains the course in general to evaluate their works.

### **b. Cognitive Research**

Cognitive research is a neurological and psychological research that gives strong support for constructivism and inductive methods (Bransford et al, 2000). The findings are “*all new learning involves transfer of information based on previous learning*” (Bransford, 2000:53), or inductive teaching presents new information that are situational where a student can make relationship while dealing with problems with what they have already known (cognition) and the learning is easier. The most effective implementations of inductive learning is diagnostic teaching that allows to give students lessons in order to discover what students think while facing several problems, their misconceptions and give them context to push them to readjust their ideas (ibid). Most work in cognitive research involves teamwork skills and the work is well organized in a way that an individual shows his capacities to make the learning process successful as the case of children who are able to use their imagination in a unique way by drawing or painting.

Inductive method helps students to develop metacognition which is considered as thinking about thinking that enables students to evaluate their progress while completing activities in the classroom. In this way, higher order thinking control of one’s cognitive processes and knowledge of how they learn is achieved by transferring information that is learned in one context to another (ibid). It is crucial to mention that the forms of inductive

method as inquiry based learning, problem based learning and discovery learning contribute to rise motivation that in turn influence the students by becoming willing to learn if they can see the effectiveness of what they learn when they can use that knowledge acquired in the classroom to do something that has an impact on others (ibid).

### **c. Intellectual Development**

The highest developmental level is seen in college and it is contextual relativism used by Perry, W. (1988). It is individuals try to think to gather expert scientists and engineers for the goal of rendering the level of students more advanced and that help them in time of graduation. The students can follow one of the three ways to learn in the course surface approach is characterized as mechanical as it needs less or no effort to understand the meaning being taught but others may use deep approach by asking many questions to discover the meaning behind the sentence or the course by practice. It is worthy to mention that intellectual development aims at adopting deep approach to study subjects needed to ameliorate their personal capacities and profession. (Marton and Saljo, 1997).

Felder and Brent (2004) see that inductive approach and deep approach share the same features, or both contextual relativism and deep approach require the learner to take charge for his own learning by asking questions to have a clear insight about new knowledge in the context which is related to the existing knowledge and experience. Hence, thanks to deep approach there is an intellectual development accompanied with motivation and using authentic materiel.

### **d. Cycle Based Instruction**

Learning cycle is very important in the learning process since a student works through sequences of activities that include complementary thinking and problem solving approaches

as at the end of each semester, students assess their understanding after through doing exams in the sense that they provide their feedbacks with personal explanations that differ from one student to another linked to teacher's question. In this way, the teacher checks whether the students is ameliorating or not.

The activities are different in most these cycles and thanks to them there are many learning styles that can be abstract, concrete, active, reflective (Felder, R . M. 1996:18-23). Therefore, learners feel willing to learn and comfortable as students taught in the way they prefer and feedback with plenty of practice.

The best known teaching cycle is related to Kolb's learning mode that first introducing the problem and showing its effectiveness to grab students' attention, then presenting appropriate facts, principles, theories and problem solving methods after this teachers give the forms of the lesson intended to teach to explore and apply the newly learned material , however, learning cycle is more develops at the Vanderbilt University learning technology center and the 'Star Legacy Module' (software technology for reflections) (<http://iris.peabody.Vanderbilt.edu/slm.html>).

In short, learning cycle is a clear example of inductive approach for teaching and learning that has the following steps:

- 1- Students are given a set of news, scenarios and problems that present real context to push the learner to be aware of the content and master skills found in the objectives of learning for a module.

- 2- Students first formulate their prior knowledge then think about the context of the problem and general ideas about how they explain the challenge.

3-Perspectives and resources: perspectives are statements given by experts to clarify the challenge without providing direct solution to it and resources may include lectures, reading materials, videos, homework problems, simulation, links to web and others related to the challenge.

4-Assessment activities: students practice what they know, identify what they need to reach solutions to the challenge. The activities may contain writing essays, reports, taking exams online and self assessment. To solve easily the challenging it is better to relate the third step with the fourth one.

5-Wrap up: a student can present a model as a solution to the problem as presenting a report or exam to show their mastery of the knowledge and skills in the learning objective.

To conclude, learning cycle is based on learning styles and it is a sort of inductive method.

#### **I.5.4.Vigotsky and Socio Constructivism Theory**

According to Vigotsky (1978) we acquire the knowledge constructed in society. To be clear, Socio Constructivism (SC) interested in how individuals are influenced by their surrounding environment, culture that includes language, thought and imagination. He believes that language is learned through interaction with adults and peers (cited in Crown, 2012). Ellis (2000) confirms that socio cultural theory of learning begins not through interaction but during interaction by asking students to finish their task with the support of the teacher so as to learn and be able to do later the task alone. Thus, this is called Zone of Proximal Development (ZPD) which emerged with a series of development process which are

joined together through the mutual relationship to make them able to solve problems independently.

#### **I.5.4.1. Constructivism and the Instructor**

According to Christie (2005) and Honebein (1996), the teacher's work is as the following:

- A. Gives more emphasis on reality and experiences.
- B. Stresses how learners express themselves.
- C. Thanks to teacher job as acting a trainer and moderator, new knowledge is emerged between students.
- D. Testing should be associated with the task and the activity dealt with.
- E. Offers multiple modes to present a given context..
- F. The content taught in the classroom is made to be situational and social.
- G. Errors as being positive sign used to show that students are learning , especially while exchanging ideas .

#### **1.5.4.2. Constructivism and the Student**

Grennon and Brooks (1999) reports that the student can create new and personal understandings thanks to teachers' help. Also, he becomes as member of community by sharing thoughts and working in collaboration among students. So, they learn in a social experience .Constructivism is an instructional strategy that attempts to satisfy learners' needs and their purposes. Indeed, constructivism is of great importance because it makes learning authentic, challenging, and multidisciplinary and based on the prior knowledge that a student has in his mind and negotiate and reproduce the meaning.

## **Conclusion**

This chapter has dealt with the review of the literature, it shows that inductive method and attitudes are define differently according to different educational specialists. We have also reviewed types of attitudes and those of inductive method as well. Besides, we have spoken about the advantages of inductive method, its barriers and role. Furthermore, we have introduced the theoretical framework which is socio constructivism made by Vigotsky (1978) on which our research study is based.

In the next chapter, we are going to deal with the research design and methodology, where we will explain the procedures used for data collection and data analysis.

## **Chapter Two: Research Design**

### **Introduction**

This chapter is concerned with the research design of the study. This chapter explains the procedures of data collection. To be clear, how the data are collected using the questionnaire administered to teachers in the Department of English at Mouloud Mammeri University of Tizi Ouzou and teachers' interview. The procedures of data collection analysis are explained and the close-ended questions being analyzed using the Rule of Three. As for the analysis of the open-ended questions of the questionnaire, qualitative analysis is used to interpret the data. In addition to this, the results of the structured interview and the questionnaire are explained separately.

### **1. Context of the Study and Participants**

The study takes place in the Department of English at Mouloud Mammeri University in Tizi Ouzou. It lasted four weeks of October 2018. The participants under investigation are thirty three (33) teachers of the University. We have distributed our questionnaire to teachers of "Linguistics" to help us investigating our topic for 2018-2019 academic year, but we have collected only twenty three questionnaire. Moreover, we have conducted eleven structured interviews with teachers of different years of experience. They are teachers of Linguistics, Grammar, Writing and ELT in order to find out if they really use the inductive method.

### **2. Procedures of Data Collection**

In this kind of research, a questionnaire and an interview are considered two types of procedures to collect information.

The case study aims to analyze and tries to understand what is happening in the Department of English to investigate teachers' attitudes towards inductive teaching which is of great importance. Thus, the choice of the mixed method is more appropriate to lead to solution of the research questions.

## 2.1. Questionnaire

A questionnaire is defined by Brown (2001 : 06) as “*any written instruments that present respondents with as series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers*”. In other words, the questionnaire plays a crucial role in gathering the data of a particular subject. It is divided into two types of questions: close-ended and open-ended questions.

The questionnaire constructed for this study holds seventeen questions including close-ended questions and open ended questions. There are thirty three (33) questionnaires which were distributed and only twenty three (23) were gathered. The questionnaire has four sections. The first part is called “**Teachers’ Profile**” in which one question is included about the teaching experience. The second section is named “**Teachers’ Attitudes**”, and it reveals teachers’ preferences of the inductive method. The third section is labeled “**Teachers’ Training and Education Programme and the Factors that Hinder them to Use the Inductive Method**”, it is composed of six (6) questions. And for the final part, it is called “**the Usefulness of Inductive Method of Teaching in the Classroom**” which in its turn contains four questions. The questionnaire administered on October 15, 16, 17, 18, 19, 20, 21<sup>st</sup>.

## 2.2. Interview

According to Richard and Rodgers (2001:61) assert that “interviews *allow for a more depth exploration of issues than is possible with a questionnaire, though they take longer to administer and are feasible for smaller groups*”. This means that an interview is an important data collection tool where the respondents give an in depth specific information about a given topic. After the questionnaire was constructed, the interview aims at obtaining qualitative information on how questions are understood and answered by actual respondents.

## 3. Procedures of Data Analysis

The collected data are analyzed using a mixed method that combines between the quantitative and the qualitative method.

### 3.1. Descriptive Statistical Method:

We have chosen the statistical to show the gathered quantitative. The results are highlighted by means of tables for teachers’ questionnaire, pie charts and diagrams for that of teachers which make visible both the number of answers and their related percentages. In fact, a quantitative research is used especially to analyze and organize information. In addition, it allows to reorganize information, calculate and conduct a variety of statistical analyses (Blumenthal, 2010).

We have proceeded in the calculation of the percentages using the Rule of Three.

The rule of three is applied as follows:

$$X = \frac{? \times 100}{\square}$$

X is the calculated percentage, z (?) is the value of the similar answers, y is the total number of the participants. For open ended questions the data obtained will be interpreted using qualitative content analysis (QCA).

### **3. 2. Qualitative Content Analysis (QCA)**

After the analysis of the numerical data. We opted for a content analysis in our study to go in depth concerning the questionnaire and the interview that are given to teachers. The interview was transformed into written material. In this respect, qualitative content analysis *“involves data collection procedures that results primarily in open ended non numerical data which is then analyzed primarily by non-statistical methods”* Dornyei, Z (2007:24). In the work done by Weber (1990:9), content analysis is, *“a research method that uses a set of procedures to make valid inferences from text”*. So, content analysis gives a clear insight to a particular phenomenon and understand new information. It is a scientific instrument for data analysis (Krippendorff, 2004).

### **Conclusion**

This chapter highlights the research designed in the study. The data collection procedures are the questionnaire and an interview for teachers to explain when, where and how the information and the data are gathered. For the analysis of the procedures used are the Rule of Three to give percentages of the data of questionnaire but the qualitative content analysis is used for both of the open ended questions of the questionnaire and of the interview to get new data and get clear insight on teachers' attitudes related to inductive approach.

## Chapter Three: Presentation of the Findings

### Introduction

This chapter deals with the empirical side of the study. After the analysis of the questionnaire of the teachers, the results are obtained and the findings of teachers' interview are reached. First, this study analyzes the close-ended questions in a form of statistics. Then, the qualitative content analysis is used in order to interpret both the open-ended questions of the questionnaire and interview.

### 1. Presentation of the Questionnaire's Results:

#### Section One: Teacher's Profile

Question One: Years of Experience

A. 2 -5years

B. 5 - 8years

C. 8- 11 years

D. 11- 14years

E. More than 14 years.

	A	B	C	D	E	No answer	Total
Number	1	10	3	1	7	1	23
Percentage	4.34 %	43.47%	13.04%	4.34%	30.43%	4.43%	100%

Table (01): Teachers' Year of Experience

The results show that ten teachers in the Department of English representing (43.47%) as a percentage that declares years of their experience in teaching is from five to eight years in Mouloud Mammeri University. Seven teachers representing (30.43%) declared that their years of experience are more than fourteen (14) years. Only three teachers (13.04%) selected the answer C "8 - 11 years". Also, only one teacher chose the answer A "2-5 years" with

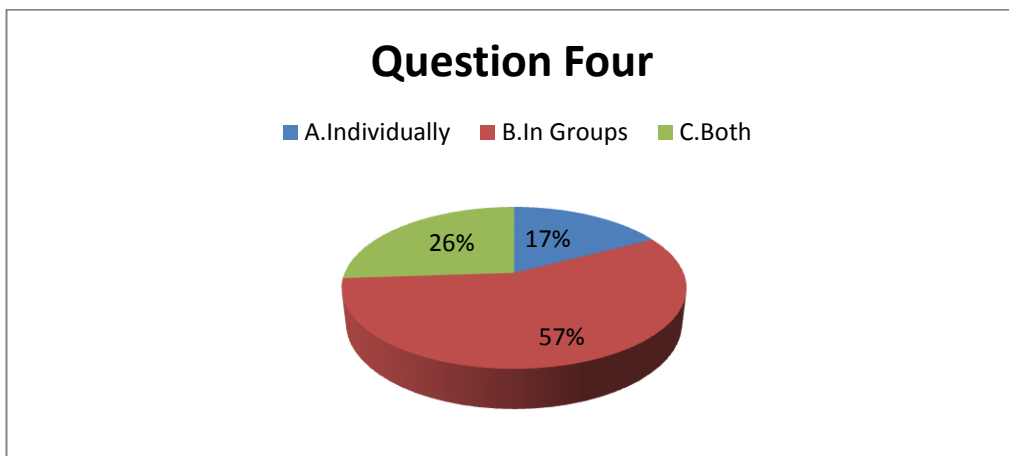


Pie Chart (01): The Use of the Deductive Method

The findings demonstrate that the majority of teachers representing (60.86%) in favor are of the deductive traditional method while teaching in the classroom, whereas only nine teachers representing (39.13%) dislike its use.

Question Four: Is it good to let learners work in the classroom?

- A. Individually      B. In groups      C. Both



Pie Chart (02): Teachers' View of the Way to Make Learners Study Effectively

The table four shows that the majority of teachers (13) representing (56.52%) preferred to encourage students to learn in groups. However, six teachers representing (26.08%) show their preference of working both individually and in groups. Except four teachers (17.39%) opted the answer A that is “individually”.

Question Five: How often do you see that lack of experience affects the classroom teaching to implement the inductive method?

- A. Strongly disagree      B. Disagree      C. Agree      D. Strongly agree.

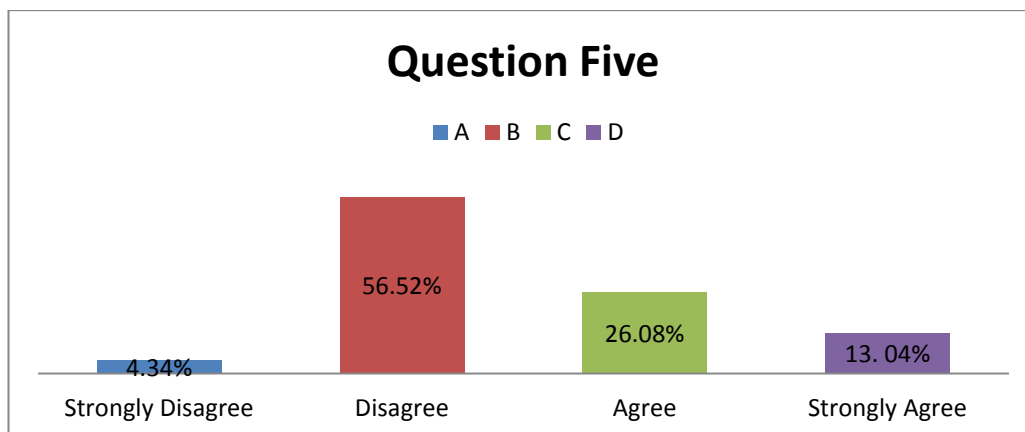


Diagram (01): Degree of Teachers' Experience and its Impact on the Inductive Method

The results reveal that thirteen teachers representing (56.52%) disagree with the fact that lack of experience influence on the use of the inductive method. (26.08%) agree with this statement. However, three teachers making up (13.04%) say that they strongly agree and one (1) teacher representing (4.34%) strongly disagree with it.

Question Six: How much do agree or disagree with the following statement “Self-confidence is an outcome for the implementation of the inductive method to make the teaching and learning process successful”

- A. Strongly disagree      B. Disagree      C. Strongly agree      D. Agree

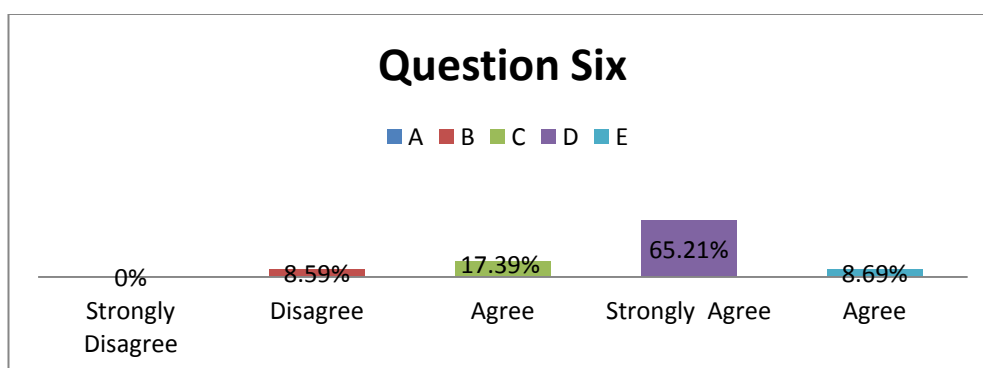


Diagram (02): Degree of Teachers' Preferences of Finding Self Confidence as a Positive Result.

The answers for this question vary from one teacher to another. The majority of them (65. 21%) said that they agree that self-confidence is a good outcome that renders teaching and learning more beneficial for learners and teachers as well. Indeed, (17. 39%) of teachers strongly agree with this statement, however, (8. 69%) disagree with this fact and no teacher (0%) replied with “strongly disagree”.

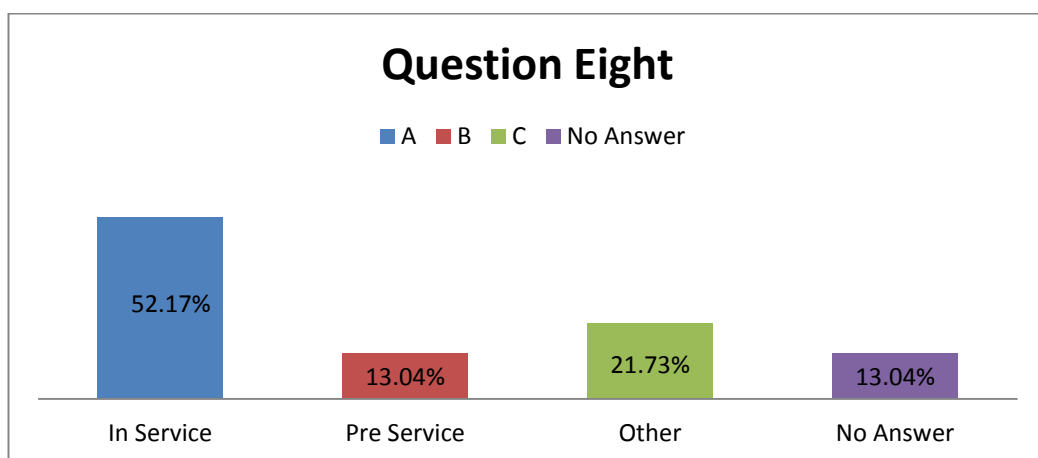
Question Seven: Do you agree that teachers’ attitudes influence their teaching in the classroom? (Would you justify your answer?)

All the teachers have claimed that their attitudes impact on their teaching inductively in the classroom by creating a good atmosphere to grab their attention and render them enthusiastic and willing to learn actively and trust in their capacities rather than being passive recipients and wait for teachers to give everything.

Section Three: Teachers’ Training and Education Program and the Factors that hinder them to Use the Inductive Method

Question Eight: What kind of training have you received?

- A. In service                      B. Pre service                      C. Other

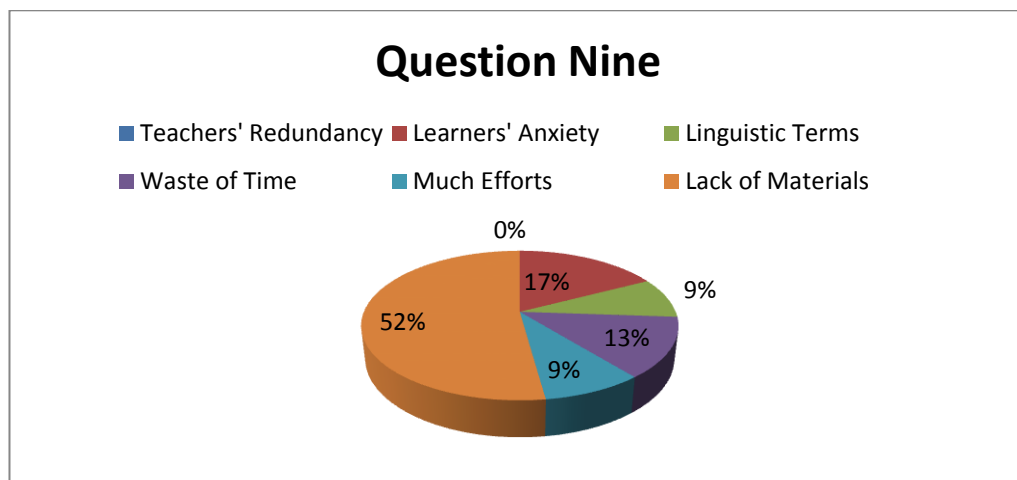


### Diagram (03): The Type of Teacher's Training

The findings show that more than half teachers representing (52.17%) of in service training. As we see above, (21.73%) of the teachers have received other types of training, but only 5 teachers received pre service training presenting (21.73%), and three of them (13.04%) have not answered.

Question Nine: What are the factors that prevent teacher to use the inductive method?

- A. Teachers' redundancy
- B. Learners' anxiety
- C. Linguistic terms have not been familiarized by students
- D. Waste of time
- E. Much efforts needed by teachers
- F. Lack of materials



Pie Chart (03): The Factors that Prevent Teachers to Implement the Inductive Method

The results indicate that more than half teachers (52.17%) agree that the lack of materials is one of the key reasons that prevent them from using the inductive method especially if the number of students is not limited. In this case, (17.39%) reflects the answer ‘‘B’’ which is learners’ anxiety. And only 3 teachers representing (13.04%) of the answer

“D” (waste of time). Also, the same percentage was found for the answer “E” and “C”. And no one of teachers (0%) agree with the idea “A”.

Question Ten: Do you think the role of the teacher in the classroom?

- A. Transmitter: of the knowledge clearly thinking and get specific information
- B. Orienting students: to develop their thinking and get specific information
- C. Ensure calm
- D. Evaluator: by asking questions.

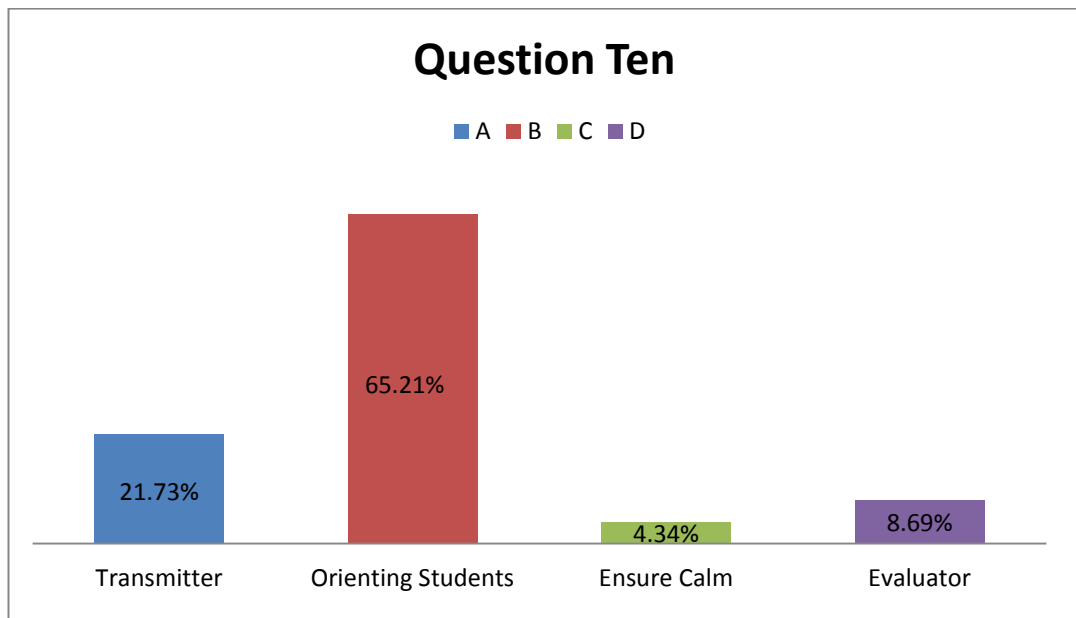


Diagram (04): Investigating the Role of Teachers in the Classroom

The table above shows that the majority of teachers opted the answer “B” which is “orienting students to develop their thinking and get specific information”, representing (65.21%). As it is shown (21.73%) is a percentage that reflects 05 teachers who answered “A”. Unlikely, only 02 teachers representing (8.69%) chose the answer “D” and it remains 01 teacher who answered “C” to represent (4.34%).

Question Eleven: Does inductive method require a lot of efforts?

A. Yes

B. No

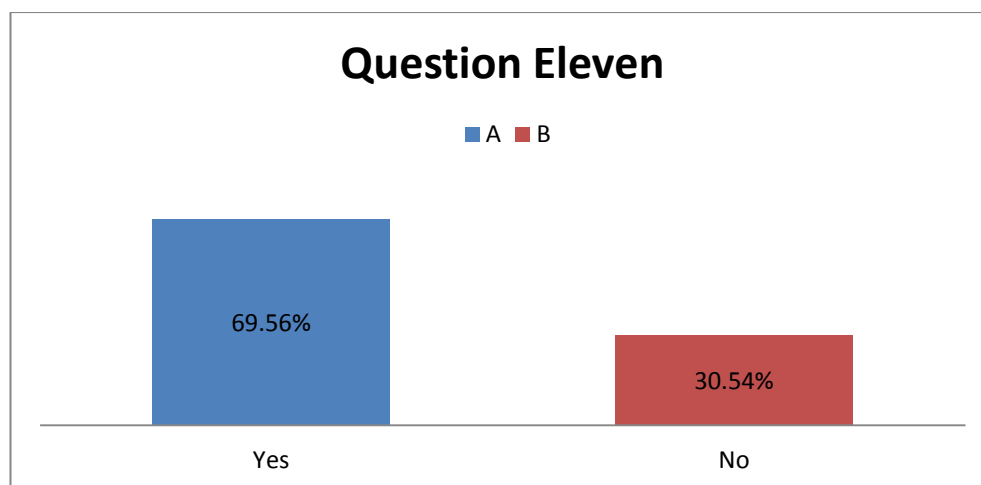


Diagram (05): Teachers' Preference of the Fact that Inductive Method Needs a Lot of Efforts

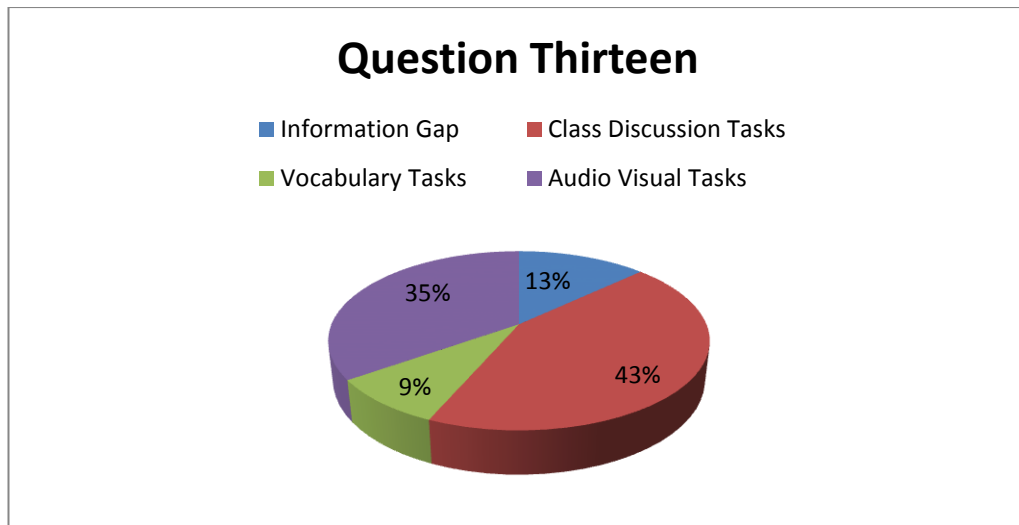
The majority of teachers (16) believe that the inductive method needs much effort to use it. So, the findings show that they represent (69.56%), and seven (07) teachers representing (30.54%) disfavor of this statement.

Question Twelve: How can teachers' training enhance the classroom practices?

The obtained answers show that all the teachers confirm that training is of great importance to teach students a given foreign language and enhance the classroom practices. To be clearer, teachers' training for them helps and allows students to develop their strategies, competence and developed them through practice. Also, training helps teachers to gain insights on the appropriate methods and techniques to satisfy learners' needs to enhance their self-confidence. Thus, the teaching and learning process will be successful.

Question Thirteen: Which kind of tasks do you consider more appropriate for learning inductively?

- A. Information Gap
- B. Class discussion tasks
- C. Vocabulary tasks
- D. Audio visual tasks



Pie Chart (04): Teachers’ Appropriate Tasks Used in their Teaching

The pie chart above demonstrates that most teachers representing (43.47%) chose for the answer (B) that they agree to use the class discussion tasks than the other tasks, while some others representing (34.78%) prefer audio visual tasks. Only 03 teachers representing (13.04%) declare that information gap is better than the others. On the other hand, (8.69%) of teachers select the answer (A).

**Section 4: Usefulness of the Inductive Method in Teaching**

Question Fourteen: When mastering grammatical rules, students feel?

- A. Satisfied
- B. Strongly satisfied
- C. Confident
- D. Strongly confident
- E. Annoyed

The table above indicates that the highest percentage of teachers choose strongly satisfied when students find out the rules autonomously. (26.08%) of them assert that they become satisfied. Then, (21.73%) of the teachers opted for the answer “strongly confident”.

However, only one (1 teacher) answered with the answer C “confident”. Besides, no teacher expressed his being “Annoyed”.

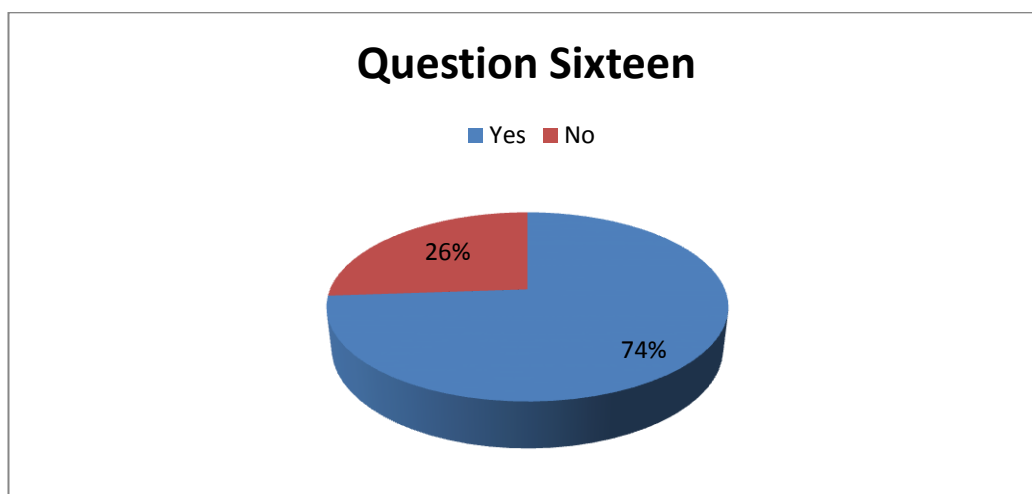
**Question Fifteen:** How can inductive teaching enhance learners’ foreign language to master the grammatical rules?

The majority of the teachers believe that inductive teaching allows the students to be active by sorting out the grammatical rules themselves from the contextual examples that the teachers give them. Once they find out these rules, they are able to memorize them easily. Also, they are trained with more practice so as to communicate fluently in the foreign language. In contrast, the minority (3) teachers have not answered this question.

**Question Sixteen:** Is the use of inductive method easy for you?

A. Yes

B. No



**Pie Chart (05):** Teachers’ Opinions about the Nature of the Inductive Method

As indicated above, the answers gathered from twenty three (23) teachers show clearly that the majority of them find that the inductive method is easy to implement (73.91%). In

contrast, the rest of the answers disagree with this statement by saying it is a difficult task to apply.

Question Seventeen: Do you think that inductive teaching is beneficial for future learning (Would you justify your answer?)

### **The Effectiveness of the Inductive Teaching for Future Learning**

This question is open-ended question where the opportunity is given to the participants to express themselves about the effectiveness of the inductive method for future learning. Almost all the teachers answered this question except one (1). Nineteen teachers affirm that an inductive method is of great importance as it is the best way to enrich learners' intellectual abilities and enables them to cope with problematic situations. Two teachers don't think that it is a good modal for teaching as simply they prefer the deductive method. Besides, only one (01) teacher left the question with no response.

## **2. Presentation of the Results of the Teacher's Interview**

The second data collection tool used in our study is the interview which we have conducted with six (06) teachers of the Department of English at Mouloud Mammeri University. The interview brings more details to answer questions. The following are the detailed results of the interview.

1. In your opinion, is inductive method a way to enhance students' learning? Would you justify your answer, please?

All teachers agree on the fact that the inductive method is seen as a crucial way to enhance students' learning. However, each one of them says it in his or her own words as follows:

-Yes, because it encourages negotiation of meaning by exchanging their opinions and challenging ideas presented to them.

-Yes, as it pushes the students to make analysis and synthesis in order to become critical thinkers.

-Yes, since it is based on active learning where learners are led to discover knowledge for themselves.

2. Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

All of the participants (06) say that the role of the teacher is to facilitate students' learning, encourage them to share, exchange ideas, advise and orient them as Mautone has claimed in the review of the literature where the inductive method is helpful for teachers to guide students to notice examples in order to discover the rules independently. Thus, the instruction seems easier.

3. Are teachers seen as a positive part that helps learners to correct their errors and encourage their feedback during lectures and activities?

All the teachers state that teachers' feedback is of great importance because it allows the learners to evaluate how they learn but concerning errors. It is better to let them correct by themselves or by their peers. In case the task is complex, the teacher intervenes to help them in solving the problem.

4. Do you think that experience and maturation influence the teaching inductively?

The majority of teachers go with the point that experienced teachers contribute to manage students' learning, their behaviours and disciplines. In addition to that, thanks to experience and maturation, the teacher knows how to get students involved and stir their enthusiasm. So, it is crucial for teachers to hold positive attitudes to get students willing to learn.

5. What are the features of a best method of teaching English for you? Would you justify your answer?

All the teachers claim that the best method is characterized by pushing the learners to become critical thinker, self autonomous while learning inductively in or outside the classroom. Furthermore, the good method for teachers is the one reduces anxiety and language apprehension in order to become active rather than being passive learners.

6. What are the difficulties encountered when teaching grammar using an inductive approach? How do you overcome the difficulties?

All the participants argue that the learners can face some problems. Sometimes, it is difficult for them to induce the rules by themselves, and they spend much time and energy to sort out the rules. In this case, teacher must help them by providing; for instance, more and different contexts related to the rules they are asked to induce. Moreover, the teacher must assess their levels during each course to check their understanding about the lecture and know how to select the examples so as to render them intrinsically motivated.

## **Conclusion**

This chapter presented the results obtained from the questionnaire and the interview which were administered to teachers in the department of English at Mouloud Mammeri University. From the results, we can deduce that teachers apply more the deductive method than the inductive method in their teachings. These findings are going to be discussed in details in the following chapter.

## **Chapter Four: Discussion of the Findings**

### **Introduction**

This chapter aims to discuss and interpret the results obtained from the questionnaire given to teachers of the Department of English and also the results of the interview that we have conducted. The results are in fact interpreted and discussed in relation to the literature presented in chapter one and they aim at answering the research questions, confirm or refute the hypotheses stated in the General Introduction.

Therefore, this chapter will be divided into two sections. The first one deals with the analysis and discussion of the data of teachers' questionnaire. The second part tackles the analysis of the results of the teachers' interview.

#### **1. Discussion of the Teachers' Questionnaire**

##### **1.1 Teacher's Profile**

The results of the first question regarding teachers' profile have revealed that the years of teachers experience vary from two (02) to more than fourteen (14) years. Most teachers opted for the year from five to eight, except for two teachers that we find each one of them has declared a different year of experience. One teacher declared his experience from two to five year and another one revealed his experience from eleven to fourteen. While just one teacher has not answered the question. This reflects that the teachers in the Department of English at Mouloud Mammeri University have enough experience to use the inductive method. Similarly, Borg (2006: 275) affirms that teaching "*is a process which is defined as dynamic interactions among cognition, context and experience*". Thus, experience is a vital and indispensable aspect in the teaching process.

## 1.2 Teachers' Attitudes towards the Inductive Method

As regards the second question which deals with teachers' preference of inductive method, the results have revealed that (56.52%) of the participants opted for "yes", (34.78%) chose "no", no answer is given for this question (8.69%). These results show that more than a half of the teachers favor more the inductive method than the deductive one. This may reveal that they accept to shift from teacher-centered to learner-centered as we have mentioned in the review of the literature. In other words, the teacher shows them a series of examples, and then orients them to observe these examples in order to induce the rules all alone.

As it is stated in the review, Prince and Felder (2006:123) claim that inductive instruction is "*a preferable alternative that begins with a set of observations or experimental data to interpret, a case study to analyze or a complex world problem to solve*". That is, learners must be more active and interested to learn than being passive and lazy elements in the classroom, waiting for teacher to give and explain everything to them without making any efforts to acquire knowledge, and ameliorate their levels. Pascal himself reported that "*people are generally better persuaded by reasons they have discovered more than by those which have come into the minds of others*"(as cited in Thornbury, 1999: 51).

However, the results of the third question that deals with whether teachers really use the deductive method for their teaching or the inductive one, the majority of the teachers implements the deductive method represents (60.86%) as it is shown in (pie chart1), this is because they consider the deductive method easier to apply than the inductive one where there is little space for students to make mistakes, especially if teachers haven't explained the rules, correctly and precisely as the scholar Thornbury confirms (1999:54 -55), and the number of students is not limited all the time. While (39.13%) of the informants have opted for the option "no" to use the inductive method as the best one for teaching and learning in

UMMTO. This is because they believe that inductive method is able to help students to learn English grammar by moving from subconscious to conscious knowledge by relying on an abstract set of grammatical rules acquired from the data and not from imitation (Zhou, 2008). That is to say, students at the beginning of the lecture they don't know the grammatical rules but at the end they are aware of them thanks to situational examples and teachers' questions after a long practice.

As to the fourth question that deals with teacher's opinions of the way to make students learn effectively (see pie chart 02) have shown that (56.52%) prefer letting students working in groups so as to learn easily and get motivated to discuss the problem to solve it in short time. In groups , learners exchange their opinions and ideas and interact with each others to solve the task easily in short time In addition, the choice of exploiting language skills is accessible in inductive approach via group or peer interaction activities(Widodo, 2006), while some participants (26.08%) have selected the answer "both". This is because in some cases, the teacher prefers to use the two depending on the activity: if it is too difficult, it's better to work together and if the task is simple, they work individually to improve their own way of thinking, only four (04) teachers have chosen the answer "individually". This means, the learner should be accustomed to work independently without the help of others to express themselves in an open way and assume what they think and what they declare by using their intellectual abilities.

From the analysis of the sixth question that deals with degree of teachers' preferences of considering self-confidence as a positive outcome of the use of the inductive method (see (diagram2). The result shows that (65. 21%) of the participants agree with this statement. In the same vein of research, Widodo (2006) states that learners are "dynamic actors", feel confident and responsible for what they learn, (17.39%) representing "strongly agree" with it,

(8.69%) disagree with it and no one answers with “strongly disagree”. Also, (8.69%) of the teachers have not answered the question.

As regards the seventh question related to teachers’ attitudes that influence their teaching inductively in the classroom, the results have shown that all the teachers (100%) have confirmed that teachers’ attitudes is of great importance in the classroom ;one of the teachers said that attitudes refer to *“self confidence ,teaching evaluative strategies and trust in learners’ capacities”*. Another teacher said that *“teaching is a reflection of a teacher personality”*. That means that the way the teacher teaches reveals how he thinks. Another one argued that *“attitudes can influence learners’ concentration and even their psyche”*. In other words, the process of teachers’ thought is based on three main elements. *First, “teaching is largely influenced by teacher cognition. Second, teaching guided by teachers’ thoughts and judgments. Third, teaching constitutes a high level decision making process”* (Isenburg, 1990, n.p). As it is reported in the review of the literature, attitude is qualified as mental state of being prepared and influenced by others and objects (Allport, 1935:810). Another one answered *“yes, definitely. The ways teachers perceive things influence their own practices in the classroom because their attitudes are influenced by their cultural and social background”*. This goes hand in hand with Borg’s (2006:272) assertion which indicates that attitudes determine *“values, knowledge and beliefs”*. Also, most teachers are not showing their agreement on the fact that lack of experience affects the classroom teaching to use the inductive method (question 05).

### **1.3 Teacher’s Training and the Factors that Hinders Teachers to Implement the Inductive Method**

As regards the eight question related to the type of training that teachers have received, more than half participants represent (52.17%) as it is displayed in a diagram

affirms that they receive in-service training , while (21.73%) receive other trainings(see diagram03). The same percentage (13.04%) is found in pre service training and for no answer. It is crucial to relate the question eight (8) with the twelfth one that discusses the way teachers are trained to help them enhance classroom practices. To be clear, training “*allows teachers to gain insights into the methods and strategies that help to make learning and teaching effective*” as one teacher of Linguistics stated. Another teacher claimed that “*training is important for the teacher because he is qualified for such tasks and aims at developing a given competence within the learners*”. One more teacher declares that training is “*to know how to deal with different situations*”. Another one reported that training of teachers “*allows learners’ self confidence to grow by getting them involved and stir their enthusiasm*”.

As for the ninth question relating to the factors that prevent teachers to use the inductive method in the classroom, it is worth mentioning that more than half percentage presents lack of materials (52.17%). This means, since we are in digital life, the materials are essential to foster learning in a very short time and understand easily and ameliorate particularly the spoken and listening skills; however, the means are not really available for each student to follow the lesson attentively introduced by teachers. For the ones who selected the learners’ anxiety, it represented (17. 39%). That is, the way learners feel influence and affect the way they learn negatively if they feel embarrassed, while waste of time presented (13.04%) where students find themselves working out the rules for a long time and this what makes some students may become stressful (Thornbury, 1999:54-55)..

In fact, inductive teaching is time consuming as it is mentioned in the review of the literature. The same percentage (8.69%) is given too much efforts needed by teachers with linguistic terms have not been familiarized by students. No one selected the answer teacher’s redundancy. (see pie chart03).

As regards the tenth question that deals with the role of teacher in the classroom, the majority represented (65. 21%) orienting students to develop their cognition and their own information (see diagram 04). The aim is to prepare students for ‘an either-or’ world (Onwuegbuzie and Leech, 2005:272). To be clear, the teacher is required to teach in a correct way by giving situational examples, then explain them to learners to guide them working out the rules to communicate fluently and easily, while some of them chose transmitter (21. 73%) as simply a teacher has sufficient, organized knowledge that allows him or her to send it to students to master language and become fruitful but the teacher should always keep in mind what students want, what the research question was and how they explain to arrive at the knowledge . As the results indicate, (8. 69%) prefer to say evaluator by asking relevant questions to assess their performance. As some teachers argue that you can’t teach randomly without knowing their levels first. However, (4, 34%) favored ensuring calm. In addition to this, with teachers’ training the techniques and strategies help learners to be effective as it is reported by some teachers in question twelve.

The results of the eleventh question that deals with whether the inductive teaching needs much efforts or not. We notice that (69.56%) reported that it requires much efforts of the teacher to look for relevant examples for the given problem which will lead to desirable conclusion as Hinkel and Fotos said (2002). So, the efficiency of this method depends highly on the teacher, but the others said the opposite representing (30.54%). (see diagram05).

From the analysis of the thirteen question which deals with the types of activities that are more appropriate to learn inductively. Class discussion tasks are seen more appropriate for learning representing (43. 47%). The best example of that is fluent activities that focus on meaning and freedom to communicate easily and speedily, and (34. 78%) prefer audio visual tasks (see pie chart 04) to facilitate understanding. Others declared that information gap is better. However, just (8.69%) chose vocabulary tasks.

#### 1.4 The Usefulness of the Inductive Method for Teaching

As regards the fourteen question which speaks about the feeling of students in the mastery of rules, it reveals that (47.82%) of teachers provide the answer “strongly satisfied”. Similarly, Winter claims that “*inductive technique renders great service to teachers who have problems with keeping their students disciplined, concentrated and occupied, as it is partly obviates these problems. knowing that they can work out the rules themselves greatly increase their motivation ,make them attentive , actively involved, confident, enthusiastic about the learning process than being passive recipients*”, (26.08%) of teachers choose “satisfied”, (21.73%) of the totality of the respondents have opted for the answer “strongly confident (see table 13). And only (4.34%) selected the answer “confident” as they construct their own knowledge rather than accepting information as they are found in textbooks or given by instructors. No one answers with the answer “annoyed”.

As to the fifteen question that discusses about the way can inductive method enhance the learners’ grammatical rules to master the foreign language. Inductive teaching is to use foreign language in real life day situations. That is, one teacher said through “practice”. Another one claimed that inductive method “*allows students to find out the grammatical rules themselves relying on context and examples .Such a way of learning fosters mastery*”. Another one said that “*when the rules are learned inductively they are more likely to become part of the students’ mental structures*”. Another teacher claimed that “*inductive teaching offers the opportunity to students to obtain rules themselves which would be better memorized in this case*”. Another one said that inductive teaching “*allows motivating students and becoming fluent*”. Besides, one teacher argues that “*students are prepared to cope with any language situation except if they have a data bank of correct information*”.

From the analysis of the sixteen question which deals with teachers' opinions of the nature of the Inductive method .The majority of teachers answered with "yes" by representing (73.91%) the use of inductive method is easy for them since they are characterized as "*competent and experienced teachers who know their students well longer and how to adjust their needs and capacities*"(Chalipa, 2013) (pie chart06), however, there are some teachers presented (26.08%)by saying it is not at all easy to follow the inductive method in the Algerian universities.

Indeed, the results of the seventeenth question revealed that all teachers asserted that inductive teaching is beneficial for future learning by giving many reasons. One teacher said that as "*inductive teaching is related to thinking abilities such as reasoning, analysis and critical thinking*". Another teacher added that because "*inductive teaching stimulates the learning process and makes it active and interesting as well*". Another teacher stated that inductive method has a primary role as "*inductive teaching like concept building, is the best way to make learners intellectually able to cope with problematic situations*". Another teacher reported that inductive teaching is so prominent by saying "*since it develops their cognitive skills by using their social construction of knowledge to present the reality*". Only two teachers added different ideas. One teacher said "*every method is beneficial provided that it is clearly and well implemented*". While, another one added that the deductive method is "*better than the inductive method because it spurs the students to deduce the rules after a teacher well explains and gives them the rules directly, then be confident enough .Or, it is a way to avoid seeing students passive*". Only one teacher has not answered the question.

## **2. Discussion of Teachers' Interview**

As to the first question related to teachers' preference about the inductive method, the answers are all supporting the idea that inductive method plays an important role in the

teaching and learning process. One teacher says that: “it *encourages negotiation of meaning by exchanging their opinions and challenging ideas presented to them*”. This goes hand in hand with Prince and Felder’s (2006:123) definitions who consider it as “*preferable alternative*” that is based on observations in order to formulate and study real topics. The remaining ones declare that it refers to “*active learning where students discover knowledge for themselves*”. This means that the majority of teachers prefer the inductive method.

As for the second question regarding that deals with the impact of inductive method to ameliorate the critical thinking of students, in fact, all teachers stress that inductive reasoning involves “*making predictions about novel situations based on the existing knowledge*” as Hayes Heit and Swendsen (2010:278) have claimed. One teacher said it is based on active learning where learners are led to discover knowledge for themselves. Another one reported “*With the inductive model the learner memorizes better the rules that he or she found after lot of efforts made during the lesson than being given and explained by teachers*. In this way, he is going to deepen his or her understanding by using language. The more they speak the more they improve their skills and solve problems easily. That is to say, teachers like this method as it enables learners to think, find rules by themselves and understand by themselves. So, their brains work well to discover “*the law to a problem rather than spoon fed by their instructors during the passive learning process to make the learning meaningful*” (Hong Kong Examination Authority, 2004).

As regards question three concerning the role that teacher take while teaching inductively in the classroom, the majority argue that teacher is a key element that opens doors to enlighten ,facilitate and exchange thoughts and views with some guidance and clarifications. This is why Bransford (2000: 11) *confirms that “the instructor still has important roles to play in facilitating learning guiding, encouraging, clarifying, mediating,*

*and sometimes even lecturing, there are times, usually after people have first grappled with issues, on their own, that teaching by telling can work extremely*". While one teacher states that the teacher is the one who impose himself to controls and provides the rules to get them involved in the classroom.

The results of the fourth question deals with the importance of correcting students' errors while teaching inductively in the classroom. The teachers say that errors is a good sign that shows learners are willing to learn and get knowledge after making much efforts. So, one teacher declares that "*students learn more from their errors than from the teacher*". Another one justifies his answer by saying "*he may correct some errors to avoid fossilization and stagnation for students' learning*". In this case ,the teacher may intervene to correct their errors in order to motivate and encourage them to study effectively especially if they get bored, passive learners or challenging some complex tasks, here the teacher may help them to solve the problem as one teacher argues. In fact, these results go with Chalipa's ideas (2013:2) that asserts that inductive method is mainly "*based on trial and errors and experiments where learner tries different things ,seeing what works and what does not through experimenting if they figure out the grammatical rules* .Therefore, errors are considered to be positive feedback for students *to succeed in communication*.

The results of the fifth question concerned with the impact of experience and maturation in teaching inductively. One teacher says that, "*experience for me is the basic element in the educational process as it provides a teacher with all the necessary methods and techniques to consolidate the relationship between teachers and students, so teaching and learning is going to be of course effective*". This is why Chalipa (2013:2) announces that "*Inductive teaching can be used only by experienced and competent teachers who know his student enough to be able to adjust the instruction to their needs and capacities*. In other words, as one informant claims that, "*the more you have experience the more you are aware*

*of how to manipulate with the learners as simply everyone has his own style, level and strategy for learning”.*

Indeed, concerning the last question that deals with the difficulties that teachers find while implementing the inductive method. One of teachers says *“Inducing the rules is not an ultimate objective”*. That is to say, the aim of the inductive method is to prepare students to speak inside and outside the classroom by using examples of their reality relying on the rules they have already grappled. However, this method may waste much time in rules’ discovery that is used as a tool to enhance learning as it is mentioned in the review of the literature. Another participant declares *“in our department, the number of students is large and not limited. Even if they are sometimes divided into groups, the hours are not sufficient for them to satisfy their needs”*. This is why most teachers don’t use it. Besides, there is a lack of materials that influence the teachers to avoid using all the time.

### **Conclusion**

This chapter provides clear answers for the research questions of the study. In addition, one hypothesis is confirmed whereas the other one is refuted. In other words, the findings demonstrated generally negative attitudes towards the use of the inductive method though teachers insist on the effectiveness of this method in the department of English as it prepares students to be highly independent, motivated and self confident by relying on the context and be successful learners. And through the investigation, we have found that lack of materials, anxiety and waste of time are main barriers to implement the inductive method.

## **General conclusion**

This dissertation investigated the teachers' attitudes towards inductive teaching in the Department of English at Mouloud Mammeri University of Tizi Ouzou. Our research has two main objectives. The first was to discover the reasons for using the inductive method by teachers. The second aim was to show clearly the main advantages of the inductive teaching to make the learning and teaching process successful.

In the first chapter, we highlighted some of the theoretical issues related to attitudes and its diverse types. Then, we highlighted the importance and types of the inductive method as a prominent model in language learning/teaching. Moreover, we shed light on the relationship between the deductive and the inductive method. Also, the role of the inductive teaching in the classroom with the problems that this method faces were discussed. In addition to that, we mentioned the foundations of the inductive method. Finally, we provided a description of our theoretical framework consisting of socio constructivism by Vigotsky (1978) related to inductive method in which we spoke. The importance of Zone of Proximal Development (ZPD) showed and enhanced the relationship between learners and students in the EFL classrooms.

For the sake of answering the advanced research questions and test the validity of our hypotheses, a mixed method approach was adopted, combining both quantitative and the qualitative methods in order to analyze and interpret the collected data. The data were gathered from two research instruments. In fact, we administered one questionnaire for teachers and the second one is the interview conducted in the Department of English. For the sake of analyzing the quantitative data, a statistical method was used. As for the qualitative part, content analysis was used for interpreting the open-ended questions of the questionnaire and the interview.

The discussion of both the results of the questionnaire and the interview provided us with answers to the research questions. Answers have shown that teachers didn't really use the inductive method in their teaching but they preferred the deductive one in the Department of English at Mouloud Mammeri university of Tizi- Ouzou though the majority of them saying that the inductive method is better; however, it needs much efforts and needs some necessary means to apply it effectively. So, this refutes the first hypothesis. As to the second hypothesis, we found that teachers affirmed that they guide students to develop their own way of thinking by providing them with knowledge. We found that teachers stressed the effect of the inductive method in developing students' oral skill depending on the teaching situation. Thus, this hypothesis is confirmed.

As a result, the research findings confirmed that the use of the inductive method was beneficial, whereas there were others who do not agree as they encountered some difficulties like anxiety and waste of time. So, the teachers can work with them, especially if the number of students is limited in order to reach their understanding easily and in a correct way.

To conclude, we hope that the results of our investigation will put new perspectives for further research in this area of study. Discussions of both the results and of the questionnaire and the interview provided us with answers to the research questions.

The answers showed that teachers taught more deductively than inductively and this refutes the first hypothesis. In addition to this, the second hypothesis is confirmed.

Our research findings have revealed that inductive teaching mostly help autonomous, responsible and self-confident students to communicate in everyday life situation with the existence of materials and to avoid anxiety.

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## **Appendix1: Questionnaire Addressed to Teachers**

**Dear teacher,**

The present questionnaire attempts to investigate teachers' attitudes towards inductive teaching in the Department of English at Mouloud Mammeri University of Tizi Ouzou. Your answers will be highly valuable for our research. The data collected are academic and the participants are guaranteed to be anonymous and confidential. We would like to thank you for your great help to make the research complete.

Inductive teaching involves giving contextual examples to learners in order to find out the rules all alone but with the teachers' guidance.

### **Section1: Teachers' Profile**

1-Years of experience:

2-5years       5-8years       years11-14 years

More than14 years

### **Section 2: Teachers' Attitudes**

2-Do you prefer the inductive method of teaching ?

Yes       No

3-Do you use the deductive method?

Yes       No

4-Is it good to let learners work in the classroom ?

Individually       In groups       Both

5-How often does the lack of experience affect the classroom teaching practice to implement the inductive method?

Strongly disagree  Disagree  Agree  Disagree  Strongly agree

6-Self confidence is an outcome of the implementation of the Inductive method to make the teaching and learning process successful

Strongly agree  Agree  Disagree  Strongly disagree

7-Do you agree that teachers' attitudes influence their teaching in the classroom? Would you justify your answer ?

.....  
.....

**Section3: Teachers' Training and Education Programme and the Factors that Hinder them to Use the Inductive Method.**

8-What kind of training have you received ?

1-In service  2- Pre service  3-Other

9-What are the factors that prevent some teachers from implementing the inductive method in the classroom ?

1-Teachers' redundancy

2-Learners' anxiety

3-Linguistic terms have not been familiarized by students

4-Waste of time

5-Much efforts needed by teachers

6- Lack of materials

10-Do you think the role of the teacher in the classroom?

a-Transmitter :communicate knowledge clearly.

b-Orienting students to develop their thinking and acquiring specific knowledge.

c-Ensure calm

d-Evaluator :by asking questions.

11-Does inductive teaching require a lot of efforts?

Yes

No

12-How can teacher' s training enhance the classroom practices ?

.....

.....

.....

13- Which kind of tasks do you consider more appropriate for learning inductively?

A-Information gap       b-Class discussion tasks

C-Vocabulary tasks       d-Audio visual tasks

**Section 4 : The Usefulness of Inductive Method of the Teaching**

14-When mastering grammatical rules students become?

A-Satisfied

b- Strongly satisfied

c -Confident

d- Strongly confident  e-Annoyed

15-How can inductive teaching enhance learners' foreign language to master the grammatical rules?

.....  
.....

16-Is the use of inductive method easy for you?

Yes  No

17- Do you think that inductive teaching is beneficial for future learning and why?

.....  
.....  
.....

**Thank you for completing  
the questionnaire!**

## **Appendix 2: Interview's Questions**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes, because it encourages analysis, synthesis, and negotiation of meaning.

**A:** Yes, it is a wonderful thing that we need to implement it as soon as we can to reach higher teaching and learning.

**A:** Yes, certainly. You have to know that this method emphasizes individual's observation by using their cognition in a particular area.

**A:** Yes, the inductive method is seen as an appropriate method that renders learning enjoyable and easy.

**A:** Yes, absolutely, because this method pushes the learner to be responsible and able to learn independently and be more active

**A:** Yes of course, the learner will become far away from apprehension, hesitation and anxiety.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students

**A:** Yes, I agree because inductive method is based on active learning where learners are led to discover knowledge independently. So, they are encouraged to share ideas and opinions and try to solve problems that are presented to them

**A:** Not sure, but I disagree. For me, the deductive method is the best one to control students' knowledge and get things clear from the beginning, then let them practise on the bases of the concepts that have been done.

**A:** Yes, I strongly agree. With the inductive model the learner memorizes better the rules that he finds after lot of efforts made during the lesson than being given and explained by teachers. In this way, he is going to deepen his understanding by using language. The more student speaks the more they improve their skills and solve problems easily.

**A:** Yes, I agree, it is interesting to say that not accepting things as they are is good for the future of the learner to go deeper in learning and to develop their mental abilities and be independent.

**A:** Yes, I agree. I am the advocator of using the inductive method for teaching in the department and the teacher must know very well on which way it is based to ameliorate and promote students' thinking.

**A:** Yes, I agree. Simply because the inductive technique is based on constructivism that makes student centered learning and uses his intellectual capacities and his own learning style as well.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** Not necessarily, the teacher acts as a transmitter of knowledge, guides them, and assesses their works in a good atmosphere.

**A:** Yes, it is because, in fact this method is based on advanced English learners where students discover the rules unconsciously at the same time teacher gives them hints.

**A:** Yes, teacher tries his best to help the learner to understand the rule by asking relevant questions to reach simplicity, logic and consistency.

**A:** The learner must use his prior knowledge to discover the rule relying on the context that teacher gives him.

**A:** Yes, we can say that teacher is the one conveys messages, evaluates students' performance, facilitator of information and ensures motivation and self confidence in the classroom.

**A:** No, it is not the one who just orients and gives examples to learners. He tries to push the learners to sort out all the knowledge they stored in their minds by asking one after another to gather as much as possible of information, and check if they really understood or not.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Teachers' feedback is important for enhancing students' learning but concerning the correction of errors, it is better to let the students correct them by themselves or by peers. The teacher should only intervene when the task is very complex.

**A:** Yes, sure the teacher is always there ready to hear as many as possible of errors for good for learning effectively the second or the foreign language.

**A:** Yes, they are because teacher should let students correct errors by their own (self correction) or in peers but not over correcting

**A:** Yes, the teacher in fact is the educator that can help the learning of students by keeping all the classes full of energy, interesting and motivating while doing their EFL or ESL lessons because the teacher is aware that each student has something to say about the lesson if students participate and the teacher judges their answers. Teaching and learning will be successful.

**A:** Yes, of course, students learn more from their errors than from the teacher.

**A:** Yes, certainly, he may correct some errors to avoid fossilization and stagnation for students' learning.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, because an experienced teacher knows better how to manage students' learning and behaviour or discipline.

**A:** Yes, of course.

**A:** Yes, the more you have experience the more you are aware of how to manipulate with the learners.

**A:** Yes, experience for me is the basic element in the educational process as it provides a teacher with all the necessary methods and techniques to consolidate the relationship between teachers and students .Indeed ,teaching and learning is going to be of course effective.

**A:** Yes, you have to know that teaching is not at an easy task as it is the future that will form generations. So, you need to be accustomed and be prepared enough for it.

**A:** Yes, but our country doesn't encourage training. It is just a theory.

**Q6-**What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** Sometimes, it is difficult for learners to infer the rules .So the teacher may help them by providing more and different contexts.

**A:** In some cases, students are passive in the classroom in the way that they provide rare feedback. To overcome this difficulty, the teacher should inform them that discussion with teacher or student with student is very prominent to master a given foreign language.

**A:** For me, the main barrier of using the inductive method is that the learner must be aware that sorting out rules is not an ultimate objective. Or, the students may spend a lot of time in eliciting the rules from the contextual example that a teacher gives them especially if they are beginners, for this reason, the time is too limited in producing language for each student as individual to communicate.

**A:** Among the obstacles of the discovery learning, we have to say that some students are more likely to be first said the basic rule or structure directly by instructors to facilitate their understanding about a given topic. It's up to the teacher first to evaluate their level and then

select the appropriate method that help them to learn and if they need both of them the teacher may use the eclectic one to make things easier for them.

**A:** The teacher should be well prepared both on the topic selected and the organization of information to show them the way to identify the rules. To be honest, we don't have the necessary means to implement the inductive method .In our department, the number of students is large and not limited .Even if they are sometimes divided into groups, the hours are not sufficient for them to satisfy their needs.

**A:** It is better to teach with the deductive method to ensure learning and finish from the syllabus in short time.

### **Appendix 3: Interviews' Transcription**

#### **Teacher One**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes, because it encourages analysis, synthesis, and negotiation of meaning.

**Q2:** Do you agree that inductive teaching improves the critical thinking of the students?

**A:** Yes, I agree because inductive method is based on active learning where learners are led to discover knowledge independently. So, they are encouraged to share ideas, opinions and try to solve problems that are presented to them.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** No, it is not the one who just orients and gives examples to learners. He tries to push the learner to sort out all the knowledge they stored in their minds by asking one student after another one to gather as much as possible of information and check if they have really understood or not.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and their feedback during lectures and activities?

**A:** Teachers' feedback is important to enhance students' learning but concerning the correction of errors, it is better to let the students correct them by themselves or by peers. The teacher should only intervene when the task is very complex.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, because an experienced teacher knows better how to manage and cope with students' learning and behavior or discipline.

**Q6-**What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** In some cases, students are passive in the classroom in the way that they provide rare feedback. To overcome such a difficulty, the teacher encourages discussions with teacher student or student with student to interact between them. For this reason, participation is very prominent to master a given foreign language.

**Thank you**

## **Teacher Two**

**Thank you for accepting this Interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes, it is a good thing that we need to implement it as soon as we can to reach higher teaching and learning.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students

**A:** Not sure, but I disagree. For me, the deductive method is the best one for me to control their knowledge and get things clear from the beginning and let them practice on the bases of the concepts that have been done.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** Not necessarily, the teacher acts as a transmitter of knowledge, guides them, and assesses their works in a good atmosphere.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Teachers' feedback is important for enhancing students' learning but concerning the correction of errors ,it is better to let the students correct them by themselves or by peers. The teacher should only intervene when the task is very complex.

**Q 5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, because an experienced teacher knows better how to manage students' learning and behaviour or discipline.

**Q6:** What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** Sometimes, it is difficult for learners to infer the rules. So, the teacher may help them by providing more and different contexts.

**Thank you**

### **Teacher Three**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes, certainly. You have to know that this method emphasizes on individual's observations by using their cognition in a particular area.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students?

**A:** Yes, I strongly agree. With the inductive model the learner memorizes better the rules that he or she have found after lot of efforts made during the lesson than being offered and explained by teachers. In this way, he is going to deepen his or her understanding by using language .The more they speak the more they think and improve their skills and solve problems easily.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** Yes, indeed this method is based on advanced English learners where students discover the rules unconsciously at the same time teacher gives them hints to show them the way to conclusion.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Yes, the teacher in fact is the educator that can help students to learn by keeping all the classroom full of energy, interesting and motivating while doing their EFL or ESL lessons because the teacher is aware that each student has something to say about the lesson. If students participate and the teacher judges their answers. Teaching and learning will be successful.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, the more you have experience the more you are aware of how to manipulate with the learners and know how to interpret their opinions.

**Q6-** What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** For me, the main barrier of using the inductive method is that the learner must be aware that sorting out rules it is not an ultimate objective but the students may spend a lot of time in eliciting the rules from the contextual examples that a teacher gives them especially if they are beginners. For this reason, we find the time is too limited in producing language for each student as individuals to communicate.

**Thank you**

## **Teacher four**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes, the inductive method is seen as an appropriate method that renders learning enjoyable and easy.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students?

**A:** Yes, I agree, it is interesting to say that not accepting things as they are is prominent for the future of learners to go deeper in learning and develop their mental abilities and be independent.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** The learner must use his prior knowledge to discover the rule relying it on the context that a teacher gives him.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Yes, of course, students learn more from their errors than from teachers.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, experience for me ,is the basic element in the educational process as it provides a teacher with all the necessary methods and techniques to consolidate the relationship between teachers and students .Thus, teaching and learning is going to be effective .

**Q6-**What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** Among the obstacles of the discovery learning, we have to say that some students are more likely to be saidfirst the basic rule or structure directly by their teachers to facilitate their understanding about a given topic. It's up to the teachers to test their levels and then select the

appropriate method that help them to learn. And , if they need both of them the teacher may use the eclectic method to make things easier for them.

**Thank you**

## **Teacher Five**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:**Yes, absolutely. Because this method pushes the learner to be responsible, able to learn independently and be more active as well.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students?

**A:** Yes, I agree. I am the advocator of using the inductive method for teaching in the department of English. The teacher must know very well when and where to use it in order to ameliorate and promote students' thinking.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** The learner must use his prior knowledge to discover the rule relying on the context that teacher gives him.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Yes, of course, students learn more from their errors than from the teacher. Well myself I can say that correcting errors is a kind of feedback.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, you have to know that teaching is not at an easy task as it is the future of generations. So , you need to be accustomed and be prepared enough for it.

**Q6-**What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** The teacher should be well prepared both on the topic selected and the organization of ideas and information to show them the way to identify the rules. We don't have the necessary

means to implement the inductive method .In our department, the number of students is large and not limited .Even if they are sometimes divided into groups, the hours are not sufficient for them to use this method and satisfy their needs. It's better to teach with the deductive method to ensure learning and finish from the syllabus in short time.

**Thank you**

## **Teacher Six**

**Thank you for accepting this interview.**

**Q1-**In your opinion, is inductive method a way to facilitate students' learning?

**A:** Yes of course. The learner will become far away from apprehension, hesitation and anxiety.

**Q2-**Do you agree that inductive teaching improves the critical thinking of the students?

**A:** Yes, I agree .Simply because inductive technique is based on constructivism that makes student centered learning in the classroom and willing to use their intellectual capacities to show and manifest his own learning style.

**Q3-**Is teacher's role is just giving examples to illustrate the content and guide students when implementing the inductive method?

**A:** Yes, we can say that teacher is the one conveys messages, evaluates students' performance, facilitator of information and ensures intrinsic and extrinsic motivation and self confidence in the classroom.

**Q4-**Are teachers seen as a positive sign that help learners to correct their errors and encourage their feedback during lectures and activities?

**A:** Yes, certainly, they may correct some errors to avoid fossilization and stagnation for students' learning.

**Q5-**Do you think that experience and maturation influence the teaching process?

**A:** Yes, but our country doesn't encourage training. It is just a theory.

**Q6-**What are the difficulties encountered when learning grammar using an inductive approach? How do you overcome the difficulties?

**A:** For me,the inductive approach can face some problems.First, the teacher should be well prepared both on the topic selected and the ideas should be organized to show them the way to

identify the rules. Second, we don't have the necessary means to implement the inductive method. Then, in our department, the number of students is large and not limited .Even if they are sometimes divided into groups, the hours are not sufficient to teach them inductively and to satisfy their needs. Finally, it is impossible to implement the inductive method randomly without having necessary infrastructures and identifying the level of students.

**Thank you**