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The Effect of Metacognition on Independent Learning: A Case Study of Second Year EFL Students at Medea University

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Dedication

This work is dedicated to all the people who did support me on this journey seeking knowledge starting from my lovely parents, my right hand and only brother, all of my four wonderful sisters, my unique aunt, and finally without forgetting my colleagues Ikram and Maroua. Deep down my heart, thank you a million times.

Raouf

Dedication

My deep appreciation and regard goes to my parents, the most loving and supportive people. Who help, motivate and encourage me during my educational journey to rear my success.

To my dear sisters: Ichrak, Imane, Wafaa, and Safaa for their around-the-clock reassurance and unconditional love.

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To my dearest friend "Yasmine" for giving me her hand whenever I need her.

To my beloved uncles "Moussa "and "Mustapha" for their support.

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Ikram

Dedication

It is with genuine gratitude and warm regard I dedicate this work to my beloved parents.

Whose words of encouragement and push for tenacity ring in my ears, for their support and their prayers.

To my precious brothers "Merouane" and "Mohamed" and my beautiful sisters "Haifaa" and "Nesrine" for their endless love firstly, and for their encouragements.

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Abstract

The term metacognition is broadly defined as the individuals' ability to understand and regulate their own cognitive processes. It is considered as an essential skill of self-regulated learning since it helps learners in becoming aware of their individual learning. Hence, this study is a fulfillment of the urgent need to make students aware of metacognitive strategies that facilitate their individual learning. It explores whether there is a relation between metacognition and independent learning. Additionally, it examines the impact of metacognitive knowledge and regulative knowledge on independent learning as well as on students' academic achievement.

This research work is a case study of 42 second-year EFL students at the Department of English at Medea University, Algeria. It uses a mixed method, including both quantitative and qualitative approaches. The data was collected through two questionnaires administered to both EFL students and teachers at Medea University. The findings revealed that the informants use metacognitive and self-regulation strategies in their learning however inadequately. In addition, the results showed a higher performance in the knowledge of cognition in comparison to the performance in the regulation of cognition. Finally, the results demonstrated that most participants use metacognitive strategies in their autonomous learning. This implies that independent learning and metacognitive strategies are two correlated factors. Most importantly, the findings proved that metacognitive strategies and independent learning foster EFL students' academic achievement.

Key words: Metacognition; metacognitive knowledge; metacognitive strategies; independent learning; metacognitive awareness

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List of Abbreviations

EFL: English as a Foreign Language

LMD: Licence Master Doctorat

MAI: Metacognitive Awareness Inventory

MSQ: Metacognitive Strategy Questionnaire

PhD: Doctor of Philosophy

Q: Question

RCT: Reading Comprehension Test

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General Introduction

1. Background of the Study

A great body of research has investigated the impact of metacognitive strategies on EFL learners' language skills as well as academic performance. For instance, Wang and Han (2017) explored metacognitive knowledge and control of writing strategy in English among 65 Chinese EFL learners in two argumentative writing tasks. Students were grouped into high- and low-performing EFL writers using one standard error above or below the Mean scores of the writing tasks. The findings demonstrated that while there were no differences on any type of the writing strategies for metacognitive knowledge, the two groups differed in the actual writing strategy use on each occasion. For the more familiar and easier writing topic, high- and low-performing students differed only in cognitive writing strategies. For the less familiar and more challenging writing task, high-achievers adopted significantly more planning, cognitive, and evaluating strategies than low-achievers. Similarly, Lu and Liu (2011) investigated foreign language anxiety and strategy use in relation to their interactive effect on the students' performance in English. The participants were 934 Chinese undergraduates who completed a 71-item survey. The results showed that nearly one-third of the students experienced anxiety in English class. Besides, the participants mainly reported a medium use of both cognitive and metacognitive strategies. Furthermore, foreign language classroom anxiety, cognitive strategy use, and metacognitive strategy use were all significantly correlated with one another. In addition, all the measured variables produced a significant effect on the students' performance in English. In brief, metacognition can play an important role to develop students' language proficiency (Flavell, 1979). Above all, it can be deduced that metacognition fosters students' independent learning.

Independent learning is of a great value in teaching and learning. Helping students become more conscious of their learning is an important concern of many language teachers. Many educators are interested in helping students become more conscious of the learning process. They aim at improving students' learning capacities by helping them monitor and evaluate their own learning. Therefore, "thinking about thinking" in addition to the use of metacognitive strategies are distinguishing hallmarks of

autonomous learning. In view of this, this research examines the influence of metacognition on Algerian EFL students' academic achievement in general and independent learning in particular.

2. The Statement of the Problem

University students are expected to be independent learners and responsible for their own learning. They should not require continuous instruction during their studies, or expect all knowledge to be given to them. This independence improves students' critical thinking, creativity, self-confidence, and academic achievement. However, many students lack the necessary metacognitive skills that enable them to control their own thinking and hence become independent learners. Therefore, teachers need to adapt metacognitive strategies to help students be aware of their way of thinking, and motivate them to be self-regulated and autonomous in their learning.

3. Objectives of the Study

The first aim of the study is to explore the effectiveness of the metacognitive strategies on independent learning. The second aim is to see whether there is a relationship between metacognition and independent learning. The third aim is to examine whether independent learning enhances EFL students' academic achievement.

4. Research Questions and Hypotheses

This research tries to investigate metacognition and its effects on the development of EFL students' independent learning. In this respect, it tries to provide answers to the following research question:

- Is there any relationship between metacognition and independent learning?
- To which extent Algerian EFL students use their metacognitive knowledge to learn English?
- Do metacognitive strategies and independent learning affect Algerian EFL students' academic achievement?

These research questions are explored on the basis of the following hypotheses:

- The majority of Algerian EFL students use their metacognitive and self-regulation strategies while learning English.
- Algerian EFL students have better academic achievements when learning individually and precisely when using metacognitive strategies.

5. Research Methodology

The current study used a mixed-method research that includes the quantitative and qualitative methods for the collection and analysis of data. The researchers used two questionnaires to collect information and test the truthfulness of the mentioned hypotheses. The target group was second year English students and EFL teachers at Yahia Fares University of Medea. The sample included 42 EFL students and 10 EFL teachers.

6. Structure of the Study

This thesis includes two main chapters. The first chapter reviews the literature related to metacognition and independent learning. In addition, it sheds light on the different definitions of metacognition and its main constituents. Further, it presents the different types of metacognitive strategies. Besides, it gives an account of the importance of metacognition in learning. Moreover, it draws a clear distinction between learning and independent learning. It also explains independent learning, its importance, and its main models. Above all, it describes the effects of metacognition on independent learning.

The second chapter addresses the research methodology. It presents the research design, population, sampling, and data gathering tools. Besides, it deals with data analysis and discussions of the obtained results. In addition, it gives some pedagogical implications and recommendations.

Chapter One

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1.1. Introduction

This chapter reviews relevant literature concerning the effect of metacognition on individual learning. It explains some key concepts that serve the scope of the research including metacognition, and independent learning. Moreover, it draws a clear cut between cognition and metacognition. Besides, it sheds light on the main constituents of metacognition, as well as the types of metacognitive strategies. Above all, it describes the impact of metacognition on independent learning.

1.2. Historical Background

A huge bulk of research has investigated the influence of metacognitive strategies and independent learning on EFL learners' academic performance. It has found that learners who use metacognitive strategies tend to be more successful and gain higher academic achievement in comparison to those who do not use these strategies (e,g., Tok , Özga ,and Döş 2010 ; Rahimi and Katal, 2012 ; Muhid et al., 2020 ; Marantika, 2021).

For instance, Tok, Özga, and Döş (2010) explored the effects of metacognitive awareness and learning strategies on students' success in a distance learning class. The researchers used Metacognitive Awareness Inventory and Learning Strategy Questionnaires to collect the data. The number of participants was 126 undergraduate students from the faculty of Education in Gaziantep University. The findings revealed that metacognitive awareness and learning strategies has an important role on students' academic success in an online English course. They demonstrated that evaluation, organization, and peer learning strategies were positive predictors of academic success because they improve students' abilities to plan, manage, monitor, correct and evaluate their language use and language learning.

In addition, Rahimi and Katal (2012) scrutinized how students' metacognitive strategies awareness foster their English learning. They found that students who use metacognitive strategies are likely to be more successful. They also highlighted the importance of using such learning techniques to make students more independent and self-regulated.

Furthermore, Muhid et al., (2020) explored the effect of metacognitive strategies implementation on students' reading comprehension achievement. All participants of this study were students in the eleventh grade of Senior High School. The data was collected by means of Reading Comprehension Test (RCT) and Metacognitive Strategy Questionnaire (MSQ). The results indicated that metacognitive strategies had positive effect on students' reading achievement.

Besides, Akamatsu, Nakaya, and Koizumi (2019) examined the effects of metacognitive strategies on self-regulated learning processes, focusing on the mediating effects of self-efficacy. One hundred and five Japanese undergraduate students participated in the study. The researchers used questionnaires to measure the use of metacognitive strategies (i.e., planning strategy and monitoring strategy), self-efficacy, general learning behaviors (behavioral engagement and persistence), and the use of cognitive strategies (i.e., writing-repetition strategy and deep-processing strategy). The results showed that general learning behaviors were promoted by metacognitive strategies mediated by self-efficacy and cognitive strategies were almost directly affected by the monitoring strategy. The researchers concluded that interventions focusing on metacognitive strategy use and self-efficacy can enhance students' learning.

Moreover, Marantika (2021) investigated the relationship between metacognitive ability and learning autonomy as a strategy for improving Indonesian students' academic performance. A group of 30 student from the department of Language and Arts were chosen randomly to conduct the survey. The researcher collected the data using questionnaires and tests. The findings demonstrated that metacognitive strategies and autonomous learning develop students' academic achievement due to many reasons. First, they enable learners to manage their own learning style and control their emotional awareness. Second, they help students understand their own thoughts and learning processes. Third, they allow students to monitor their own performance. Forth, they give effective solutions to the problems faced during the learning process. Finally, they enable students to self-evaluate their own performance after completing a specific task.

Most students devote a significant amount of effort to learn new skills and collect more knowledge. Such gains are required due to the pace of change, the ongoing creation of new knowledge, and the ever-increasing access to information. Even when formal settings are available, much of this learning occurs on the learners' own. For instance, under some circumstances such as COVID-19 pandemic learners were in desperate need for techniques and strategies to help them learn by themselves.

1.3. Definition of Metacognition

The term metacognition has several definitions. For instance, the American developmental psychologist John Flavell (1976) describes it as "one's knowledge concerning one's own cognitive processes or anything related to them e.g., the learning-relevant properties of information and data." (p. 232). In other words, it is the person's awareness of how his/her brain functions in acquiring and controlling the knowledge. Furthermore, Livingston (2003) defines metacognition as "higher order thinking that involves active control over the cognitive processes engaged in learning."(p.2). Put differently, learners use activities such as planning, monitoring and evaluating in order to gain and control knowledge or solve learning problems.

In addition, Kuhn and Dean (2004) state that metacognition is "awareness and management of one's own thought." (p. 270). Similarly, Martinez (2006) defines metacognition as the monitoring and control of thought." (p.696). It is therefore the individual's ability to survey and self-regulate his/her own thoughts. The term "self-regulation" in this context means the individual's ability to understand and manage his/her thought using an array of cognitive strategies.

Moreover, Blakey and Spence (1990) mention that metacognition is "thinking about thinking, defining what we know and what we do not know." (p.1) However, this definition requires further elaboration (Downing, 2012; Noushad, 2008). In this respect, Noushad (2008) claims that "metacognition also involves knowing how to reflect and analyse thought and how to draw conclusions from that analysis, and how to put what has been learned into practice." (p.5). Otherwise speaking, learners need to know how to apply what they have learned. Most importantly, they need to

understand how to use the various cognitive strategies such as remembering and practice integrating them in learning.

To sum up, the above definitions have approached the concept “metacognition” in different ways. However, they all agree on some points. Metacognition refers to one’s self-knowledge. It is the individual’s awareness of his/ her mental processes used to adjust his/her learning processes and acquired knowledge accordingly. This adjustment can occur through the individual’s active control over cognitive processes such as memorization, reasoning, decision-making, and evaluation as well as his/her ability to use these strategies effectively in learning or problem solving.

1.3.1. The Main Components of Metacognition

Scholars have divided metacognition differently (eg., Flavell, 1976; Flavell et al., 1997; Schraw and Hacker 1998). For instance, Flavell (1979) proposed two main components: Metacognitive knowledge, metacognitive regulation.

1.3.1.1. Metacognitive Knowledge

Flavell (1979) refers to metacognitive knowledge as “that segment of your (a child's, an adult's) stored world knowledge that has to do with people as cognitive creatures and with their diverse cognitive tasks, goals, actions, and experiences.”(p.906). Put differently, it refers to individuals’ cognizance of cognitive tasks, strategies, and objectives as well as the store of non-linguistic information they possess about themselves and others. He divides such knowledge into three main categories: person variables (or declarative knowledge or personal knowledge), task variables (or procedural knowledge or task knowledge), and strategy variables (or strategy knowledge or conditional knowledge). Flavell’s classification of metacognitive knowledge is based on whether it focuses on the learner, the learning task or the process of learning (Flavell, 1979). In this context, Livingston (2003) provides an example of all three variables: “I know that I (person variable) have difficulty with word problems (task variable), so I will answer the computational problems first and save the word problems for last (strategy variable).

In brief, metacognitive knowledge is the person's knowledge about how he/she perceives, processes, organizes, and understands information. It is also about knowing how to learn or the best way or strategy to accomplish a task or to solve a specific problem.

1.3.1.1.1. Declarative Knowledge

Flavell (1979) assumes that personal knowledge refers to a person's belief about his abilities and about other people's thinking processes. Furthermore, Lai (2011) states that "personal or declarative knowledge includes knowledge about oneself as a learner and the factors that might impact performance, knowledge about strategies, and knowledge about when and why to use strategies." (p.33).This implies that declarative or personal knowledge refers to one's self-consciousness about his/her, strengths, limitations that affects his/her actions. For example, most adult learners know the limitations of their memory system and can plan accordingly (Schraw et al., 2006). In addition, Vandergrift et al., (2006) define personal knowledge as "knowledge about how factors such as age, aptitude, gender, and learning style can influence language learning." (p.434). Put differently, individuals' awareness about themselves can shape and affect their academic achievement. Moreover, Paris and Winograd (1990) discuss the process of self-appraisal as reflection about personal knowledge to answer the question, "Do I know this?"

In short, personal knowledge is what one recognizes about his strengths, weaknesses, resources and abilities in learning and processing information. For example, the learner may ask himself some questions like: what are the specific writing problems that I have? What are the causes and the possible solutions? What are my strengths and weaknesses as an English speaker? Which strategy works best for me to learn this lesson?

1.3.1.1.2. Procedural Knowledge

Procedural knowledge or task knowledge refers to "the learner's knowledge about the purpose, the demands, and the nature of learning tasks. It also includes knowledge of the procedures involved in accomplishing these tasks." (Vandergrift et

al., 2006, p.434). It is therefore the learners' knowledge about how to do something or how to use the different cognitive strategies to perform a specific task. Most importantly, it is the learners' understanding of how a cognitive task is best managed and how successful they are likely to be in achieving its goal (Flavell, 1979). Likewise, Schraw and Moshman (1995) define it as "knowledge about the execution of procedural skills. Individuals with a high degree of procedural knowledge use skills more automatically, are more likely to sequence strategies effectively, and use qualitatively different strategies to solve problems" (p.353). To put it another way, task knowledge/ is about knowing what a task needs to be achieved, determining the kind of effort it will demand, and gauging its difficulties. For example, the learner may ask himself/herself some questions like: how can I engage in critical thinking? How can I summarize the ideas of the text? Which task takes me more time and effort to be solved?

1.3.1.1.3. Strategy Knowledge

"It is the knowledge about strategies that are likely to be effective in achieving learning goals." (Vandergrift et al., 2006, p.434). In addition, Anderson et al., (2001) refer to "knowledge of the general strategies for learning, thinking, and problem solving. The strategies in this subtype can be used across many different tasks and subject matters." (p.56).This implies that strategy knowledge is the learner's awareness of the strategies and skills that he can apply in solving a task, why certain strategies work, under what conditions and why one strategy is better than another. Similarly, Flavell (1979) asserts that strategic knowledge is the acquired knowledge concerning the strategies which are likely to be effective in achieving goals and undertaking tasks. It also involves evaluating whether the strategy used is effective or it has to be changed by another one to learn better). Strategy knowledge could be awareness of the strategies and skills that he can apply in solving a task, why certain strategies work, under what conditions and why one strategy is better than another. Similarly, Flavell (1979) asserts that strategic knowledge is the acquired knowledge concerning the strategies which are likely to be effective in achieving goals and undertaking tasks. It also involves evaluating whether the strategy used is effective or

it has to be changed by another one to learn better). Strategy knowledge could be useful for achieving learning goals and aiding the learners with having a choice in their strategy use and preference (Nisbet and Shucksmith, 1986).

In conclusion, strategic knowledge is concerned with being aware of the various effective strategies for solving problems, planning, organizing, and evaluating knowledge. For instance, the learner may ask himself/herself some questions like: which strategy can I use to facilitate comprehension and cope with difficulties? Which strategy is appropriate for specific types of learning?

1.3.1.2. Regulation Knowledge

Metacognitive regulation refers to a set of activities that help a student control his thinking or learning, including better use of attentional resources, better use of existing strategies, and a greater awareness of comprehension breakdowns (Schraw and Moshman, 1995). In this respect, Schraw (1998) mentions that learning can improve when regulatory skills and an understanding of how to use and apply these skills are contained within classroom instruction. Researchers suggest that metacognitive regulation consists of three main activities which are: planning, monitoring, and evaluating. (Cross and Paris, 1988; Paris and Winograd, 1990; Schraw and Moshman, 1995; Schraw et al., 2006).

This activity involves identification and selection of appropriate strategies and allocation of resources, and can include goal setting, activating background knowledge, and budgeting time management (Arar, 2015). Moreover, Schraw and Moshman (1998) emphasize that planning activities include predicting, determining time and effort allocation, selecting strategies, setting goals and making plans for achieving those goals. That is to say, planning is about deciding what you need to learn, how you are going to learn that material, how much time you need, which strategy you are going to use and the goals that need to be achieved at the end of the task. The learner may ask himself some questions in this stage of learning, for instance: What are the learning objectives for this class? What do I already know about this topic? What are the concepts I need to master before my next test? What

active learning strategies will support my learning? Which charts or visuals will help me reorganize or process this material? And what memory strategies can I use to remember key words and concepts?

1.3.1.2.1. Planning

This activity involves identification and selection of appropriate strategies and allocation of resources, and can include goal setting, activating background knowledge, and time management. (Arar, 2015). Moreover, Schraw and Moshman (1998) emphasize that planning activities include predicting, determining time and effort allocation, selecting strategies, setting goals and making plans for achieving those goals. That is to say, planning is about deciding what you need to learn, how you are going to learn that material, how much time you need, which strategy you are going to use and the goals that need to be achieved at the end of the task. The learner may ask himself some questions in this stage of learning, for instance: What are the learning objectives for this class? What do I already know about this topic? What are the concepts I need to master before my next test? What active learning strategies will support my learning? Which charts or visuals will help me reorganize or process this material? And what memory strategies can I use to remember key words and concepts?

1.3.1.2.2. Monitoring

Monitoring or regulating involves attending to and being aware of comprehension and task performance and can include self-testing (Lai, 2011, p.9). Namely, in monitoring, learners are regularly observing and controlling what they have learned, what they do not yet know, and whether their study strategies are helping them to learn effectively. Research argues that monitoring can improve with training and practice (Schraw, 1998). In this activity the student may ask himself several questions to observe whether he/she is maintaining or making progress toward the task or the objective, for example: which of my confusion have I clarified until now? To what extent am I being systematic in my learning session? What do I not yet understand?

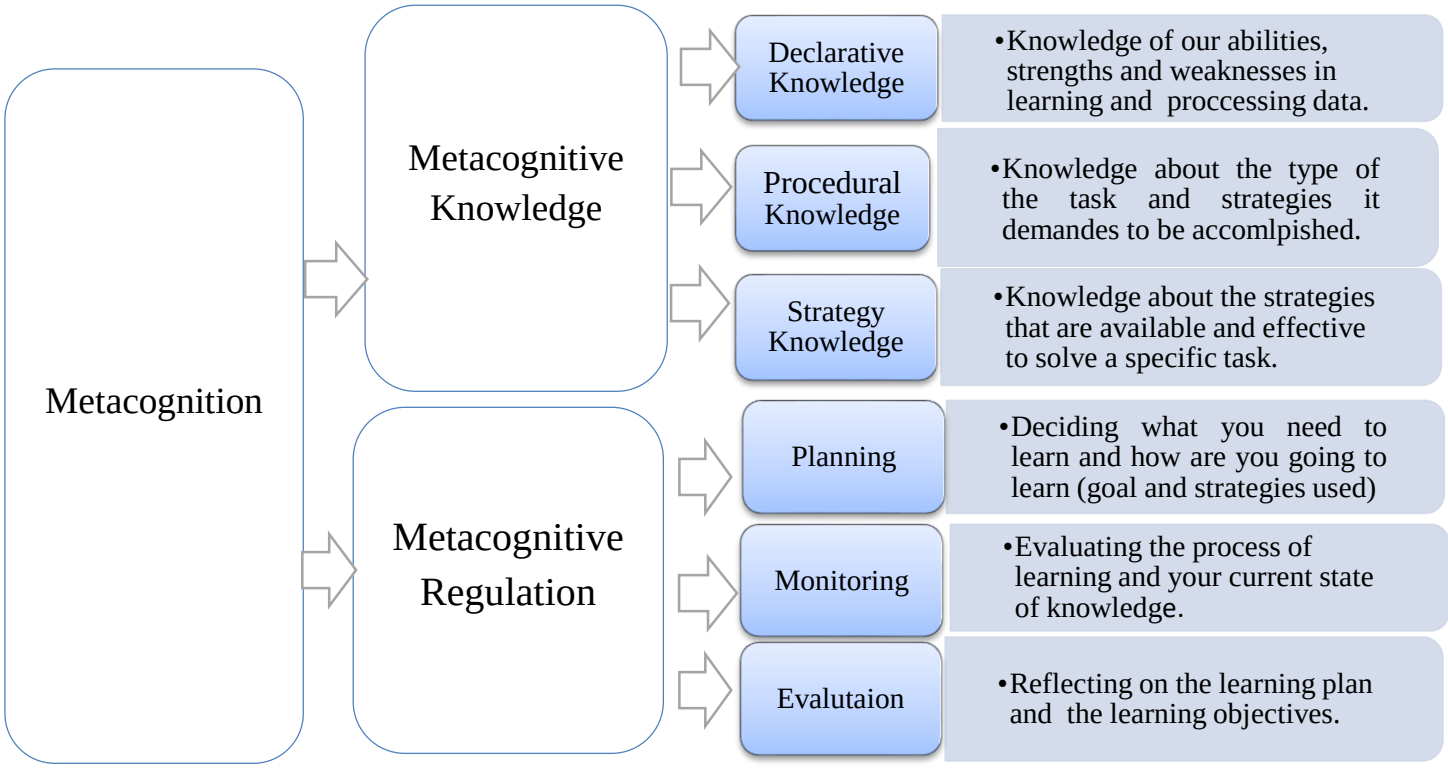
How well are my strategies working in the term of solving this task or do I need to change it?

1.3.1.2.3. Evaluation

Evaluation is defined as “appraising the products and a regulatory process of one’s learning and involves revisiting and revising one’s goals.” (Schraw and Moshman, 1995, p.355).

In simple words, evaluation is related to the learner rate and judgments of the results achieved after finishing a specific task to see whether the plan or the strategies he/she used were effective or not . In this phase of learning, the student may ask himself different questions like: have I reached my goals ? Is there anything I do not understand? How well did I do? What did I learn? Would I use another strategy or plan next time?

The figure below describes the constituents of metacognition.



Graph 1.1. The Constituents of Metacognition (Adapted from Flavell, 1979; Lai, 2011).

1.3.2. Types of Metacognitive Strategies

The metacognitive strategies are a very important feature of independent learning. They are defined as "general skills through which learners manage, direct, regulate, guide their learning i.e. planning, monitoring and evaluating" (Wenden, 1998, p.519). This implies that strategies such as planning, monitoring and evaluating develop autonomous learning in the sense that learners become capable of making informed choices and taking responsibility for their own learning activities. According to Flavell (1979), the metacognitive strategies are designed to monitor the cognitive process; they are organised processes that happens inside the brain to ensure that the learning goal is reached. He also mentioned that a single strategy can be invoked for either cognitive or metacognitive purposes. He used the example of asking oneself questions at the end of the learning session in order to monitor, evaluate, and regulate the acquired knowledge.

Moreover, Chamot et al., (1999) said that there are three cognitive models that describe the working of the metacognitive strategies and the goal of helping students to become independent learners which are: information processing theory, schema theory and constructivism (pp.157-159). First, information-processing theory refers to the thinking processes related to learning and remembering. Second, schema theory says that our prior knowledge is stored in schemata, which are organised structures. i.e. "concept maps" of a central concept and its associated ideas. Schemata enables us to form predictions, visualise events, draw conclusions track comprehension, and hence facilitate the learning process. Finally, constructivism suggests that learners actively build meaning through using appropriate cognitive strategies to connect prior knowledge with the new information (Arar, 2015).

In this context, the main principles of the metacognitive strategies include planning for the organisation of either written or spoken discourse. Monitoring, that is reviewing attention to a task, and one's own understanding and production. Evaluating which means checking the comprehension after completing a receptive language

activity. Finally, these strategies are very crucial for learning autonomy, and the development of the students' information processing.

1.4. The Place of Metacognition in EFL Learning

There can be no doubt that metacognition plays a key role in the process of successful learning. Several researchers have examined the relationship between metacognition and learning and proved that having a strong metacognitive knowledge is crucial to successful learning (Baker and Brown, 1984; Devine, 1993; Flavell, 1979; Kasper, 1997). In this respect, Kowalke (1998) said that "to make sure that children become intelligent, insightful, educated human beings, we educators must help them become conscious of their own learning and thought process. Instead of teaching students what to think, we need to teach them how to think and how to think for themselves" (p.234). This means that students need to know their inner thoughts and their way of thinking, and processing information. Thus, realising the significance of metacognition in learning has necessitated the use of effective teaching and assessment principles in attempt to enhance the learners' performance. Specifically, in the context of language learning (Arar, 2015).

1.4.1. The Importance of Metacognition for Learning

A good learner is "one who has ample metacognitive knowledge about the self as learner, about the nature of the cognitive task at hand, and about appropriate strategies for achieving cognitive goals." (Devine, 1993, p.109). In other words, learners' knowledge of their own cognitive abilities, knowledge of particular tasks and knowledge of strategies develop their learning skills. In this regard, Kasper (1997) examined the applications and development of students' metacognitive knowledge and its components (i.e. person, task, strategy), and discovered a link between metacognitive strategic knowledge and language competence level. In addition, Wenden (2001) agrees on Devine's statement, claiming that metacognitive knowledge is not only necessary for successful learning but also has a direct impact on all students' learning decisions. He has also defined it as a prerequisite for the self-

regulation of learning, which indicates that the metacognitive strategies or metacognition is the cornerstone of independent learning.

Furthermore, self-regulated learners are noted to adopt more effective learning techniques, as well as to be higher performers and more strong second language learners (Anderson, 2002; Schraw, 1998). Schraw, for instance, believes that metacognitive knowledge is multifaceted, domain-general, and teachable. Significantly, research shows that educating people to learn metacognitive knowledge helps them become more conscious of their cognitive processes. As a result, they have more control over their learning and performance (Arar, 2015).

In a nutshell, metacognition involves several interactive and recursive stages starting from building the cognitive knowledge followed by a procedural experience to self-regulate, which are very necessary for the learning process.

1.5. The Definition of Learning

Defining learning has never been easy. According to Shuell (1986), there is no precise and single definition of learning that is globally accepted with more than fifty theories of learning and hundreds of scholars making it so difficult to find the appropriate one. The word 'learn' comes from the old English term lore, which literally means 'instruction' and refers to a body of traditions and knowledge on the subject.

Learning is generally defined as a permanent change in behavior as a result of practice or experience. Biggs (1999) takes a larger view, arguing that learning is more than just obtaining knowledge; it is also a means of interacting with the environment. Our understanding of things changes as we study. The acquisition of knowledge does not cause such change rather it is the way we organize that information and think about it that does.

However, Schunk (2012) states that "learning is an enduring change in behavior, or in the capacity to behave in a given fashion, which results from practice or other forms of experience." (p.3).This implies that learning has a number of

criteria. First, learning involves change in behavior or in the capacity for behavior. People learn when they become capable of doing something differently. Second, learning endures over time. But, learning may not last forever because forgetting occurs. It is debatable how long changes must last to be classified as learned, but most people agree that changes of brief duration (e.g., a few seconds) do not qualify as learning. Third, learning occurs through experience. This criterion excludes behavioral changes that are primarily determined by heredity, such as maturational changes in children (e.g., crawling, standing) (Schunk, 2012).

Nonetheless, Bandura (1986) believes that "learning is largely information processing activity in which information about the structure of behavior and about environmental events is transformed into symbolic representations that serve as guides for action." (p. 51). Otherwise speaking, learning is affected by cognitive, behavioral and environmental factors. Bandura (1986) further adds learning is governed by four fundamental aspects: attention, retention, replication, and motivation. People observe and extract information from ongoing modelling actions through the process of attention while they retain and store the information into memory by transforming and restructuring information in the form of rules and ideas. The act of reproducing the observed behavior is known as reproduction, and finally, motivation is what drives the learner to pay attention, practice, and remember what they have learned (Wood et al., 1989, p. 362).

Finally, learning has several definitions. However, the most common definition of learning is the process of gaining knowledge and processing it in the brain. Nevertheless, it is doubtful that the learners are conscious that they are meeting a need or that they are acting independently. This unconscious autonomy is one of the primary characteristics of effective learning that occurs outside of formal educational contexts that can subdivide dependent from independent learning.

1.6. The Definition of Independent Learning

For decades, researchers have been studying students' independent learning in higher education. It is offered as something worthwhile that should occur at university since it is more student-centered than teacher-centered. However, undergraduate students fail to meet their higher education instructors' expectations and struggle to deal with the autonomous and self-directed learning style (Wilde et al., 2006).

Different terms have been coined for independent learning such as self-regulated learning, autonomous learning and self-directed learning (eg. Kesten, 1987; Schunk, et al., 2000). First, self-regulated learning is defined as goal oriented learning which is conscious, and without a teacher's immediate control. It is crucial for learning motivation (Rheinberg et al., 2000). Second, autonomous learning is defined as "the ability to take charge of one's own learning "noting that this ability is acquired and not innate." (Holec, 1981, p.3). Third, Knowles (1975) defines self-directed learning as the process where learners take the initiative with or without the help of the tutor in determining their learning needs, formulating learning goals, identifying human and material resources for learning, selecting and implementing appropriate learning strategies, and evaluating learning outcomes. In brief, self-regulated learning, autonomous learning, and self-directed learning describe very corresponding themes and processes such as people's learning comprehension, motivation to take responsibility for their own learning, and collaborating with teachers to help them manage their own environment. However, the most common used term is 'independent learning.'

In this respect, Kesten (1987) states that "independent learning is a learning in which the learner, in conjunction with relevant others, can make the decisions necessary to meet the learner's own learning needs."(p3). Similarly, Garrison (1997) asserts that independent learning is a strategy in which students are encouraged to take personal responsibility and collaborative control of cognitive (self-monitoring) and contextual (self-management) processes in order to construct and confirm meaningful and worthwhile learning outcomes. This implies that independent learning enables the

learner to make the right decisions by himself/herself and thus achieve his/her goals. In other words, independent learning encourages students to rely on their personal self-direction, self-motivation, and willingness to achieve success in learning.

Likewise, Philip Candy (1991) in 'Self-direction for Lifelong Learning' describes independent learning's as follows:

1. Independent study is a process, a method and a philosophy of education: in which a student acquires knowledge by his or her own efforts and develops the ability for inquiry and critical evaluation.

2. It includes freedom of choice in determining those objectives, within the limits of a given project or program and with the aid of a faculty adviser.

3. It requires freedom of process to carry out the objectives.

4. It places increased educational responsibility on the student for the achieving of objectives and for the value of the goals.

As a conclusion, the transfer of responsibility for the learning process from the instructor to the student is known as independent learning (Garrison, 1997). The definitions above stress on learners' freedom to act. That is to say, learners should have freedom of choice in defining objectives and freedom of method in carrying them out. This requires the learning process to be student-centered. Put differently, learners are to be viewed as decision makers who have or will gain the ability to select from a variety of learning tools and resources. Most importantly, they are self-reliant and quite aware of their strengths and weaknesses unlike dependent learners who rely heavily on the teacher and cannot make decisions about their learning (Mynar and Sorflaten, 2003).

1.6.1. Importance of Independent Learning

Herber and Nelson-Herber (1987) suggested a number of principles connected to the development of independent learners. They proposed an array of tools in the form of strategies to make learners self- motivated and more engaged in learning. They

assumed that many learners do not know how to apply and retain knowledge because of their failure of using appropriate methods and strategies. They added that the brain's capacity to learn can be improved when the suitable methods of learning are used. Therefore, learning how to learn is of paramount importance. In other words, it is quite necessary to teach students how to develop themselves and become independent learners.

In this context, Woolley (2011) confirmed that "very few teachers are adequately trained to assist students in becoming independent learners."(p.147). this implies that many teachers are either unaware or unprepared (untrained) to teach the required strategies and skills for developing students' independent learning. Therefore, higher order thinking skills such as critical thinking and problem solving should be embedded in the content instruction in order to transform the learning responsibilities from the teachers' interests to students' interests (Kiewra, 2002; Zohar, 2004).

1.6.2. Models of Independent Learning

There are so many theories of learning styles. These theories suggest that individuals have different ways of learning, such as through written text or through imagery. Models of independent learning are based on the theoretical notion of learning styles. This research focuses on two independent learning models: Pintrich (2000) model and Zimmerman (2002) model.

Pintrich (2000) proposes a theoretical model of self-regulated learning that stresses the importance of individuals planning, self-monitoring, controlling and evaluating learning activities. According to him, self-regulated learning has four phases: (1) Forethought, planning and activation; (2) Monitoring; (3) Control; and (4) Reaction and reflection. Each of them has four different areas for regulation: cognition, motivation/affect, behavior and context. First, in terms of regulation of cognition, Pintrich included judgments of learning and feelings of knowing. Regarding the second area, regulation of motivation and affect, Pintrich explained that the students themselves could regulate motivation and affect. Concerning the third

area, regulation of behavior, Pintrich stated that “individuals’ attempt to control their own overt behavior” ” (p. 466). As for the fourth area, the regulation of context, Pintrich mentioned that students attempt to “monitor, control and regulate the (learning) context” (p. 469) (Panadero, 2017).

Zimmerman (2002) extends Pintrich’s model by emphasizing the importance of motivation within self-regulation. He suggests that there are three phases of self-regulation: forethought, self-reflection, and performance. In forethought phase, there are two major classes of processes: task analysis and self-motivation. Task analysis involves goal setting and strategic planning. In this respect, Zimmerman (2002) asserts that learners who set specific goals for themselves, such as memorizing a word list, segmenting words into syllables for a spelling test tend to be more successful than students who do net set such goals. Self-motivation is associated with students’ beliefs about learning, such as self-efficacy beliefs about having the personal capability to learn and outcome expectations about personal consequences of learning.

In the self-reflection phase, there are also two major classes of processes: self-judgment and self-reaction. Self-judgment or self-evaluation refers to comparisons of self-observed performances against some standard, such as one’s prior performance, another person’s performance. Nevertheless, self-reaction involves feelings of self-satisfaction and positive affect regarding one’s performance. According to Zimmerman (2002), increased self-satisfaction improves motivation, whereas decreased self-satisfaction impedes further efforts to learn.

In the performance phase, performance phase processes fall into two major classes: self-control and self-observation. Self-control refers to the disposition of specific methods or strategies that were selected during the forethought phase such as the use of imagery, attention focusing, and task strategies. For example, in learning the Spanish word pan for “bread,” an English-speaking person could form an image of a bread pan. Self-observation refers to self-recording personal events or self-experimentation to find out the cause of these events. For example, students are often

asked to self-record their time use to make them aware of how much time they spend studying.

In brief, there are different models of independent learning. Nevertheless, they do share some basic assumptions about learning and regulation. The first common assumption is called the active, constructive assumption. That is, all the models view learners as active, constructive participants in the learning process. The second assumption is the potential for control assumption. All the models assume that learners can potentially monitor, control, and regulate certain aspects of their own cognition, motivation, and behavior. The third assumption is the goal, criterion, or standard assumption. All models of regulation assume that there is some type of criterion or standard (also called goals or reference value) against which comparisons are made in order to assess whether the process should continue as is or if some type of change is necessary. The fourth general assumption is that self-regulatory activities are mediators between personal and contextual characteristics and actual achievement or performance (Pintrich, 2000).

1.6.3. Skills Required for Independent Learning

According to Meyer et al., (2008), the skills required for independent learning can be divided into cognitive skills, metacognitive skills and affective skills.

- Cognitive skills: include memory, attention and problem-solving. Learners should be capable of deciphering/comprehending basic information before they start independent learning. Students' cognitive proficiency should be encouraged by teachers in order to foster independent learning.
- Metacognitive skills include planning, mental scripting, self-questioning, self-monitoring and a variety of other learning strategies. They are skills related to how learners identify, organize, and evaluate their own learning style and needs.
- Affective skills: skills that are associated with feelings and emotions. Motivation is considered the most important affective skill and is directly associated with increased independent learning. (p.4).

1.6.4. Promoting Independent Learning

Meyer et al., (2008) suggest a number of procedures in order to promote independent learning:

- Students should be encouraged "to learn how to learn" through the use of some effective strategies such as scaffolding; providing students with opportunities to self-monitor; offering models of behavior; developing a language for learning and providing feedback on homework.
- The promotion of independent learning should not be based on the traditional approaches of teaching, but on process-oriented teaching, which ensures that students are actively involved in the learning process.
- Study support could be used to enable independent learning since it provides students with an opportunity to choose their own learning activities and achieve their own learning goals.
- Good practice guidance and good examples of initiatives are needed to help generate guidance on the steps that schools can adapt to implement and promote independent learning in their particular context. (pp. 4-6).

1.7. The Effect of Metacognition on Independent Learning

Strategy education is quite important for the development of learning abilities and academic performance. Metacognition is a crucial component of strategy training. It enhances language competence in general and learning efficiency in particular. In this respect, Flavell (1979) asserts that metacognition is best described as knowledge or cognition that takes as its aim or governs any component of any cognitive effort.

Independent learning and metacognition have a complementary relationship. For instance, Ritchhart, Church, Morrison (2011) mention that metacognitive strategies help students become more aware of their own thinking and the strategies and processes they use to think. Correspondingly, Peters (2000) sees metacognitive skills as enabling self-management and appraisal of own thinking and learning, while Rivers (2001) reports students' self-directed learning behavior associated with students'

regular assessment of their academic performance. Similarly, Babbs and Moe (1983) claim that metacognition is a key for independent learning from a text. They add that when students learn to understand their own cognitive processes they are better to control their own learning. Furthermore, students who possess a strong knowledge of self are more likely to make wiser decisions within and beyond classroom (Duckworth and Ramer, 2009, p.183). In similar fashion, Efklides (2008) posits that metacognitive ability plays a critical role in independent learning through three aspects. First, “metacognitive knowledge aspect” serves as a "database" from which learning can be regulated. Second, “metacognitive experience aspect” functions as an affective facet in which people know or monitor how well they are learning in order to facilitate future learning. Third, “metacognitive skill aspect” which refers to the strategies people use to apply their own learning.

In conclusion, metacognition allows students to self-regulate and direct their thoughts, behaviors, and actions toward their goals. It promotes reflective and independent thinking as students build, evaluate and apply their understandings to new contexts and situations. Most importantly, it helps students make greater sense of their life experiences and start achieving at higher levels.

1.8. Conclusion

The current chapter reviews the different definitions of metacognition. Metacognition is defined as a construct that refers to thinking about the human ability to be conscious of one's mental process. It consists of two main components: the knowledge of cognition and the regulation of cognition. The first is the passive process that is related to what learners know about their own abilities, the tasks and the strategies they use to perform a specific task. However, the second is the active process that is associated with what learners do about learning and the decisions they make to improve their learning, i.e. planning and setting goals , monitoring the process of learning ,and evaluating the achievement. It also shows the different types of metacognitive strategies such as planning, monitoring and evaluating and stresses the importance of the latter in autonomous learning. Moreover, it sheds light on the facilitative role of metacognition in learning. In addition, this chapter gives an account of independent learning, its models, and its importance. Besides, it demonstrates how independent learning can be acquired and promoted by individuals. Furthermore, it describes the impact of metacognition on independent learning.

Chapter Two

Chapter Two: Research Methodology and Data Analysis

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2.1. Introduction

The current chapter illustrates the research design, participants, sampling, and data gathering tools used in this research. It gives reason for the use of the two questionnaires designed for both EFL students and EFL teachers at Medea University. Moreover, it defines the informants of this study and reveals their views and attitudes concerning the influence of metacognition on independent learning. In addition, it includes detailed explanations of the data collection procedures and provides analyses and discussions of the results.

2.2. Research Design

A research design is “a plan, structure and strategy of investigation so conceived as to obtain answers to research questions or problem” (Kerlinger, 1986, p.279). Accordingly, a research design is the general scheme or plan of data collection, in addition to the steps, the procedures and the methods used in the analysis of data for the purpose of finding answers to the research inquiry and solving the problem under examination.

There are various methods of formulating a research design to carry out a scientific study. Leavy (2017) suggests five approaches which are: quantitative, qualitative, mixed methods, arts-based, and community-based participatory. The current study adopted a mixed method to answer the designed research questions.

2.2.1. Case Study

According to Yin (2002) “case studies are the preferred strategy when "how" or "why " questions are being posed, when the investigator has little control over events , and when the focus is on a contemporary phenomenon within some real-life context” (p.1). In other words, case studies are detailed examinations of a single individual, group, community in which the researcher examines data in its real-world context. Therefore, this research takes second year EFL students at Medea University as a case study.

2.2.2. Methodology

This research adopts a mixed method which is a combination between the; the quantitative and the qualitative methods. In this regard, Johnson, Onwuegbuzie, and Turner (2007) state:

Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration. (p.123)

This suggests that mixed-methods research combines different methods in an appropriate and principled manner to reach the expected goal. It involves collecting, analysing, and interpreting quantitative and qualitative data in a single research study or a collection of studies all looking at the same fundamental topic.

2.3. Population and Sampling

Dörnyei (2007) differentiates between sample and population stating that:

"*the sample is the group of participants whom the researcher actually examines in an empirical investigation and the population is the group of people whom the study is about……. the* sample *is a subset of the* population that *is representative of the whole population.* (p.96).

Otherwise speaking, the sample is a fraction of the research population. It allows for generalizations and good estimates of the whole population based on the sample. Therefore, the population of the present study is EFL students of Yahia Fares University of Medea and the sampling is second year students of English.

2.3.1. Students' Profile

The participants involved in this study were second year English students at Yahiya Fares University. The sample was made up of forty two students, eleven males

and thirty one females. The participants were aged between eighteen and more than twenty five years old.

2.3.2. Teachers' Profile

The teachers' concerned with this study were English teachers at Yahia Fares University. They have been teaching for an average of seven years and they have got interacted with different levels.

2.4. Data Gathering Tools

Questionnaires are one of the most common methods of data collection in second language (L2) research (Dörnyei, 2003). In this respect, the researchers used two questionnaires directed to both EFL teachers and second year EFL students at Yahia Fares University of Medea. In this research work, the data collection period was generally open, with the goal of providing respondents as much time as required to reply and eventually obtain as much information as necessary.

2.4.1. Questionnaires

Among the instruments used by researchers in educational contexts in general and EFL contexts in particular are questionnaires. In this regard, Elliott (1991) claims that "questionnaires allow us to quantify people's observations, interpretations and attitudes." (p.82). This means that questionnaires help researchers to gather useful information about the participants views and attitudes concerning the research topic.

In this study, the researchers used questionnaires for data collection since they are easy to conduct and less time consuming to be designed, distributed, answered and analysed.

The formulation of the questionnaires' questions generally depends mainly on the research problems and the aim of the research. Hence, the researchers conducted two questionnaires addressed to both EFL teachers and students at Medea University to answer the research's questions and achieve the research aim.

2.4.1.1. Students' Questionnaire

The questionnaire was targeted to a group of (42) second year EFL students at the Yahia fares University of Medea. The questionnaire consists of thirty seven (37) questions of three types: closed-ended, open- ended and questions with extra space for additional answers. These questions were divided into three sections: general information, students' attitudes towards metacognition, students' attitudes towards individual learning, and further suggestions and comments.

The first Section consists of six questions and it aims at having an idea about the educational background of the participants. The second section is made up of thirteen questions and it seeks to know the level of the students' metacognitive awareness and gauge their use of the metacognitive skills in their learning process. The third section is made of eighteen questions and it intends to examine the extent of learners' independence and explore their favourite ways of learning.

2.4.1.2. Teachers' Questionnaire

The second questionnaire was directed to EFL teachers at Medea University. It aimed at gathering information about the teachers' perspectives on students' metacognitive abilities and its impact on independent learning.

The teachers' questionnaire consists of fifteen questions divided into three sections. The first section includes general information about the teachers like experience and degree. The second and the third sections seek to know the teachers' attitudes towards metacognition and independent learning successively.

2.5. Data Analysis

2.5.1 Students' Questionnaire Analysis

Section One: General Information

Q1- Students' Gender

Option	Number	percentage %
Male	11	26,2 %
Female	31	73,8 %
Total	42	100 %

Table 2.1. Students' Gender

As it is shown in the table 2.1 the majority of Second year students are females (73.8%). While, only (26.2%) are males. It may indicate that females are more interested in foreign languages than males.

Q2-Students'Age

Option	Number	percentage %
18-20	33	78.57%
Above 21	9	21.42%
Total	42	100 %

Table 2.2. Students' Age

The data in table 2.2 shows the age of the participants, 33 (78.57%) students are aged between 18 and 20, and 9 (21.42%) students are aged more than 21.

Q3-What type of baccalaureate do you hold ?

Option	Number	Percentage %
Languages	27	64,3%
Sciences	12	28,6%
Literature	3	7,1%
Total	42	100%

Table 2.3. The Type of Baccalaureate

As table 2.3 above exhibits, the informants came from three different Baccalaureate streams: Languages, Letters, and Sciences. The large part was in languages class with (64, 3%), followed by a proportion of the students who came from sciences class with (28.6%), finally literature class with only (7, 1%). This indicates the diversity of the participants' educational background in terms of their high school background.

Q4-Was it your choice to study English?

Option	Number	Percentage %
Yes	38	90.05%
No	3	9.5%
Total	42	100%

Table 2.4. The Choice of the Major

When asking students if choosing to study English was their personal choice or not, (90.5%) indicated that indeed studying English was their choice; whereas, only (9.5%) answered with no, namely those who were in a scientific field. This indicates that the students are motivated and determined to study English since they have chosen this major with conviction.

If no, please explain

When the researchers asked the participants why they did not want to study English at university. All the informants said that they were obliged to major in English because of their low grade point average (GPA).

Q5-How was your first year at university?

Options	Numbers	Percentage
Easy	7	16.7
Normal	20	47.6
Hard	4	9.5
Challenging	11	26.2
Total	42	100%

Table 2.5. How was your First Year at University

The table 2.5 describes how the participants found their first year at university. (47.6%) of the informants viewed that it was normal and (16.7%) declared that it was easy. This suggests that those students could adapt easily with the new environment and they were able to find the best learning strategies to succeed in their studies. It also propounds that they used to study independently before moving to university. However, 11 participants (26.2%) found it challenging and 4 students (9.5%) claimed that it was hard. This indicates that those students could not handle the transition from teacher-centered method to independent learning method.

Section Two: Students' Attitudes toward Metacognition

In this section, the researchers aimed at testing the metacognitive awareness of the participants. They conducted 13 questions using the Metacognitive Awareness Inventory (MAI) in order to achieve this goal. Some questions sought to determine students' perceptions of their metacognitive knowledge. Nonetheless, other questions aimed at examining the metacognitive regulation of the participants.

Q6- My time management.

Option	Number	Percentage %
Good	8	19%
Not bad	23	54.8%
Total	11	26.2%

Table 2.6. Students' Time Management

The results obtained from (table 2.6) show that more than the (54.8%) of the participants are not bad in controlling their time. However, (19%) of the respondents described themselves as good time managers. This suggests that they can be independent learners. While (26%) of the respondents confessed that they are bad in managing their time.

Q7- I can monitor and control my own way of learning.

Option	Number	Percentage %
Agree	28	59.5%
Disagree	10	2.4%
Not sure	16	38.1%
Total	42	100%

Table 2.7. They Can Monitor and Control their own Way of Learning

The table above shows that (59.5%) of the participants can monitor and control their own ways of learning. This explains that those students are using metacognitive regulation in their learning process. While (38.1%) of the informants are not sure if they use those strategies or not. This suggests that they are not fully aware about their learning abilities. The rest of the participants (2.4%) disagreed with the statement.

This implies that those students are not self-regulated learners and cannot select the appropriate learning strategy.

Q8- I can figure out if I need more time to learn.

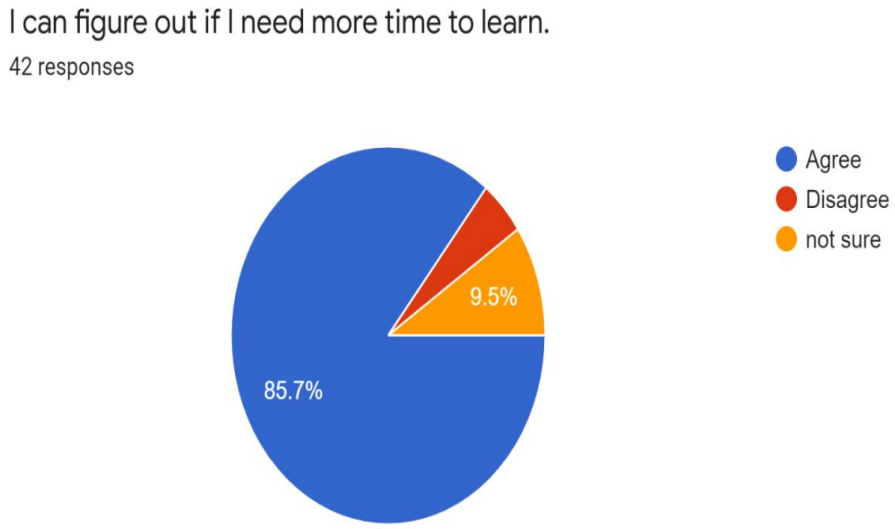


Figure 2.1. Students' Detection if they Need more Time to Learn

According to Figure 2.1, most of the students (85.7%) said that they can know if the lesson was understood or if it requires more time. This result signifies that those learners are meta-cognitively aware about their learning process. Four students (9.5%) are not sure about this ability. This indicates that they lack self-knowledge and they have lower metacognitive awareness. Finally, only two students (4.8%) disagreed, this indicates that they are unaware of their metacognitive knowledge.

Q9-I understand my intellectual strengths and weaknesses.

Option	Number	Percentage %
Agree	31	73.8%
Disagree	2	4.8%
Not sure	9	21.4%
Total	42	100%

Table 2.8. Students' Understanding of their own Strengths and Weaknesses

The results obtained indicate that the majority of students demonstrate knowledge of self with a high percentage (73.8%). However, (4.8%) of the participants confess that they are not aware of their points of strengths and their points of weaknesses. This implies that they lack self-knowledge. Finally, (21.4%) of the participants do not know themselves well enough to choose if they agree or disagree with the statement.

Q10-I think about what I really need to learn before I begin a task.

Option	Number	Percentage %
Agree	33	78.6%
Disagree	3	7.1%
not sure	6	14.3%
Total	42	100%

Table 2.9. Students' Awareness of their Learning Needs

Table 2.9 shows that (78,6%) of students think about what they really need to learn which means they are using planning strategies in their learning process. (7.1%) of informants said that they do not use planning strategy; whereas, (14.3%) of the participants avowed that they are not sure. This means that they are not conscious about their way of learning and the strategies they use.

Q11-I try to use strategies that have worked in the past.

Option	Number	Percentage %
Agree	23	54.8%
Disagree	3	7.1%
Not sure	16	38.1%
Total	42	100%

Table 2.10. Effective Strategy Use

As table 2.10 shows, the large majority of the students (54.8%) agreed that they use strategies that have worked before which indicates that they are applying their procedural knowledge in learning. (38.1%) of the participants stated that they are not sure about this idea. This implies that those students are not strategic learners or do not know how to apply their metacognitive skills during learning. However, 03 students (7.1%) disagreed with the statement. This suggests that those students are not using the metacognitive skills in learning and they are not able to discover what does the learning task demands.

Q12-I use different learning strategies depending on the situation.

Option	Number	Percentage %
Agree	20	47.6%
Disagree	8	19%
Not sure	14	33.3%
Total	42	100%

Table 2.11. The Usage of Learning Strategies

Table 2.11 reveals that (47.6%) of the respondents agreed with this statement and avowed that they use different learning strategies depending on the situation. This expresses that they are using strategy knowledge in the learning process. Yet, (33.3%)

of the respondents were not sure of applying this skill in learning, probably because they do not know how to choose the appropriate strategy or they do not know the need of the learning task. In addition, (19%) of the participants disagreed with using this skill.

Q13-I ask myself questions about how well I am doing while learning something new.

Option	Number	Percentage %
Agree	20	47.6%
Disagree	10	23,8%
Not sure	12	28.6%
Total	42	100%

Table 2.12. Self -questioning when Learning Something New

The results in (table 2.12) denote that (47.6%) of the respondents use monitoring in their learning process since they agreed on asking themselves questions during learning something new. Whilst, (23, 8%) of the students do not use the skill of monitoring in their learning. The rest of the students (28.6%) were not sure if they control their learning or not probably because they are non-strategic students.

Q14-I slow down when I encounter important information.

Option	Number	Percentage %
Agree	28	66.7%
Disagree	6	14.3
Not sure	8	19%
Total	42	100

Table 2.13. Slowing Down when Encountering New Information

The results demonstrated that (66.7%) of the students slow down when facing new information. This means that those students are using information management

strategies. However, (14.3%) of the students do not manage their information while learning. Finally, (19%) of the students were not sure if they applied this strategy in their learning or not. This leads to the conclusion that they lack metacognitive regulation in their learning.

Q15-I am a good judge of how well I understand something.

Option	Number	Percentage %
Agree	34	81%
Disagree	2	4.3%
Not sure	6	14.3%
Total	42	100

Table 2.14. Judging their own Understanding

The results demonstrated in (table 2.14) disclose that a great percentage of the student participants (81%) were self-assured that they have the ability to judge their own learning. Whilst, very few participants (4.3%) disagreed and think that they cannot evaluate their own understanding of something. Yet, the rest of the respondents (14.3%) were not sure about their personal abilities.

Q16-I learn more when I am interested in the topic.

Option	Number	Percentage %
Agree	41	97.6%
Disagree	1	2.4%
Not sure	0	00%
Total	42	100

Table 2.15. Better Understanding when they Are Interested in the Topic

The results in table 2.15 show the importance of self-motivation in improving the learning outcomes since (97, 4%) of the participants agreed that they learn best when they are interested in the topic. Only one participant disagreed with this idea.

Q17-I set my goals and objectives in advance to improve my learning.

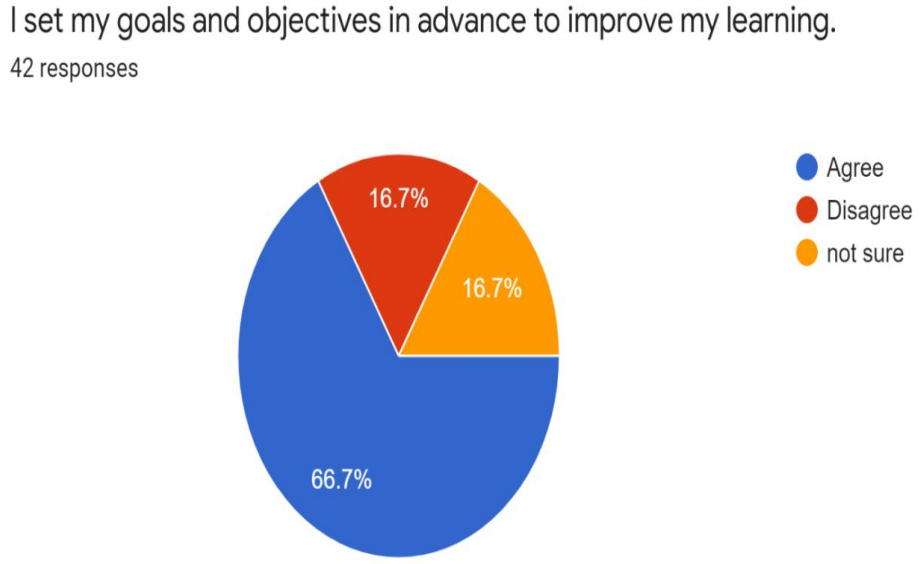


Figure 2.2. Setting Goals and Objectives in Advance to Improve the Learning

The pie chart above shows how many students set their goals and objectives to enhance their learning. It shows that (66.7%) set their goals in advance to improve their learning. However, (16.7%) of the participants do not set their learning goals. This means they study without planning and organising themselves. The other (16.7%) were not sure if they set their objectives or not.

Q18-A motivational learning climate to achieve successful learning plan requires:

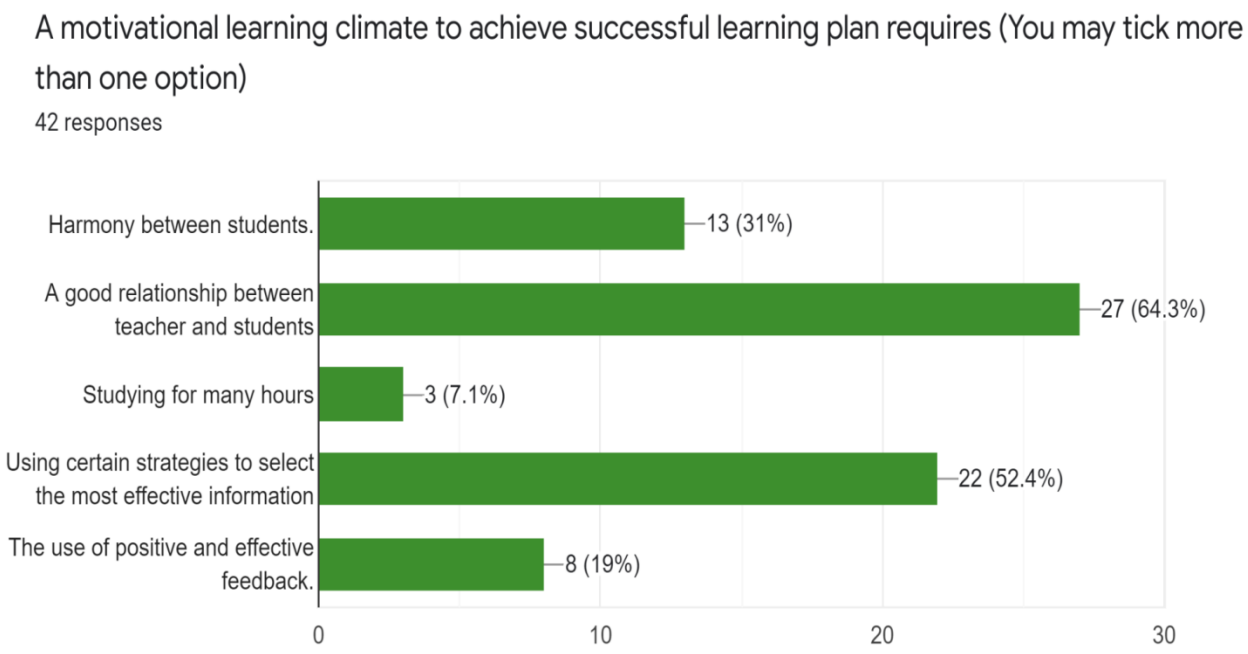


Figure 2.3. The Motivational Learning Climate to Achieve Successful Learning Plan

The bar chart above shows that the majority of students have chosen two options. 27 participants said that a good relationship between the teacher and his students is crucial to achieve a successful learning plan. In addition, 22 students mentioned that they use certain strategies to select the most effective information. Besides, 13 participants agreed that collaboration and harmony are important among students. Furthermore, 08 students like to receive positive and effective feedback to improve their learning. Moreover, 03 students prefer studying for many hours.

Other suggested options:

- Studying at home was suggested several times. This means that students need independent learning.
- Teachers can implement some new modalities of teaching that tend to create a comfortable atmosphere in the classroom. That is to say, students need their teacher in the learning process.

- “Being interested in the thing you’re learning, having fun on the process, a good atmosphere, practical lesson”. This indicates that the style of learning and the multiple intelligences affect the learning outcome.
- Some students suggested time management and planning as vital characteristics for better academic achievement.
- Another suggestion was “a strict teacher”. Some learners still cannot shift from the teacher-centered method.

Section Three: Students’ Attitudes towards Independent Learning

Q19-What is your favourite skill in English?

Option	Number	Percentage
Speaking	15	35.7%
Listening	9	21.4%
Writing	12	28.6%
Reading	6	14.3%
Total	42	100%

Table 2.16. Their Favourite Skill in English

The table above shows that the majority of students prefer speaking as (35.7%) of the participants approved it. (28.6%) of the respondents said that their favourite skill in English is speaking. While (21.4%) of the informants opted for listening. The rest of students (14.3%) asserted that they like reading more than any other skill. This suggests that students have different attitudes and learning styles.

Q20- Students' level of English

Option	Number	Percentage
Beginner	4	9.5%
Elementary	7	17.5%
Intermediate	20	47.6%
Advanced	11	26.2%
Total	42	100%

Table 2.17. Students' Thinking about their Level in English

The statistics above reveal that 04 students said that they are beginners. 07 of them believe that their level in English is elementary. However, the majority believe their level is intermediate and 11 students assume that they have an advanced level. This determines that students have different levels of English hence teaching methods should be adequate with the students' English proficiency.

Q21-Do you consider yourself as independent or collaborative learner.

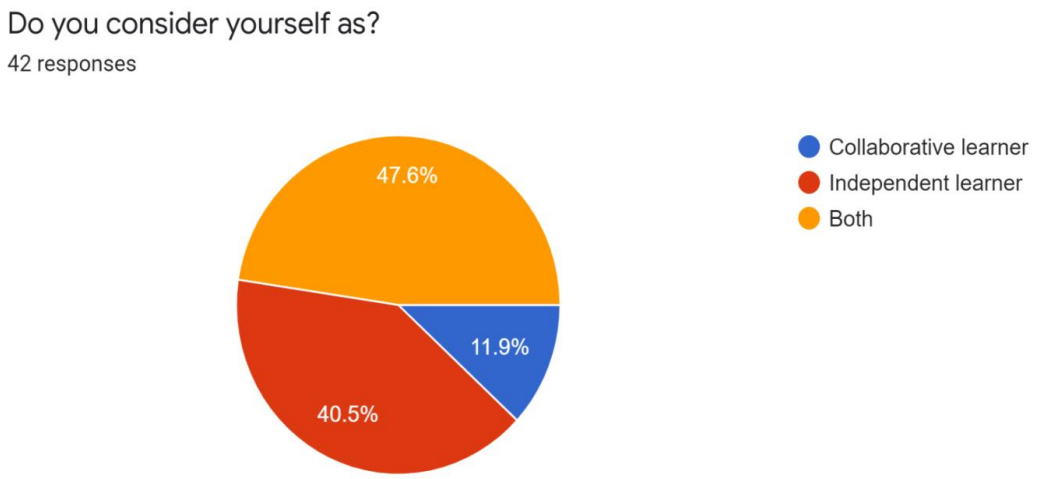


Figure 2.4. The Students' Style of Learning

Figure 1.5 shows that (47.6%) of the participants strongly believe that they can be both independent and collaborative learners**.** (40.5%) of the informants said that

they are independent learners and they like to study individually; however, only (11.9%) of the respondents feel that they are collaborative learners. This determines that the vast majority can study independently but they lack the learning strategies.

Q22- I enjoy finding information about new topics on my own.

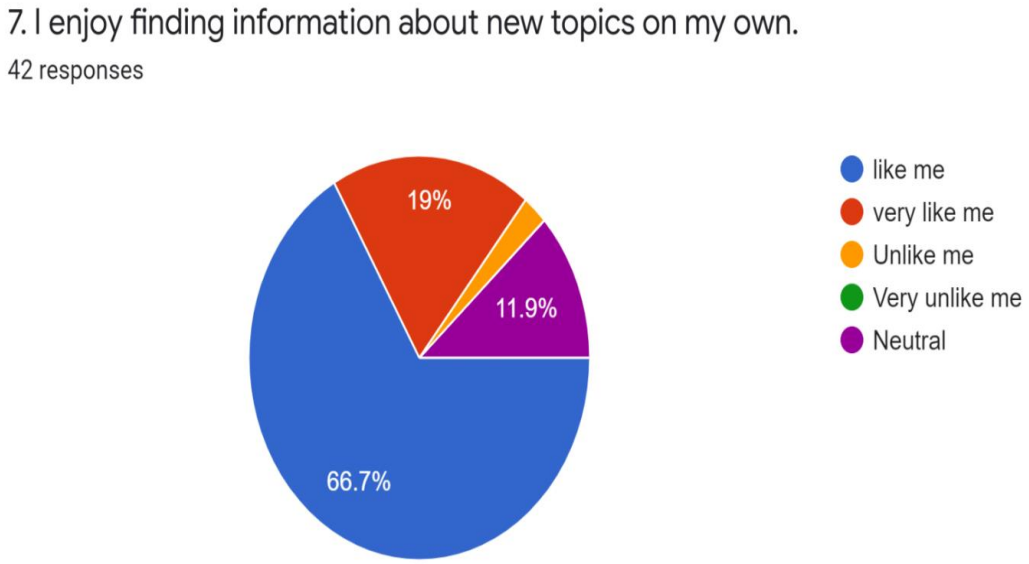


Figure 2.5. Research Enjoyments

The pie chart above reveals that (66.7%) of the participants like making research about new topics on their own. This indicates their willingness for being independent. In addition to that, (19%) of the informants stressed they really enjoy researching new topics on their own. However, only (2.4%) of the participants said that they do not like looking for new information by their own while the rest (11.9%) remained neutral.

Q23-When you are asked to do an assignment you feel.

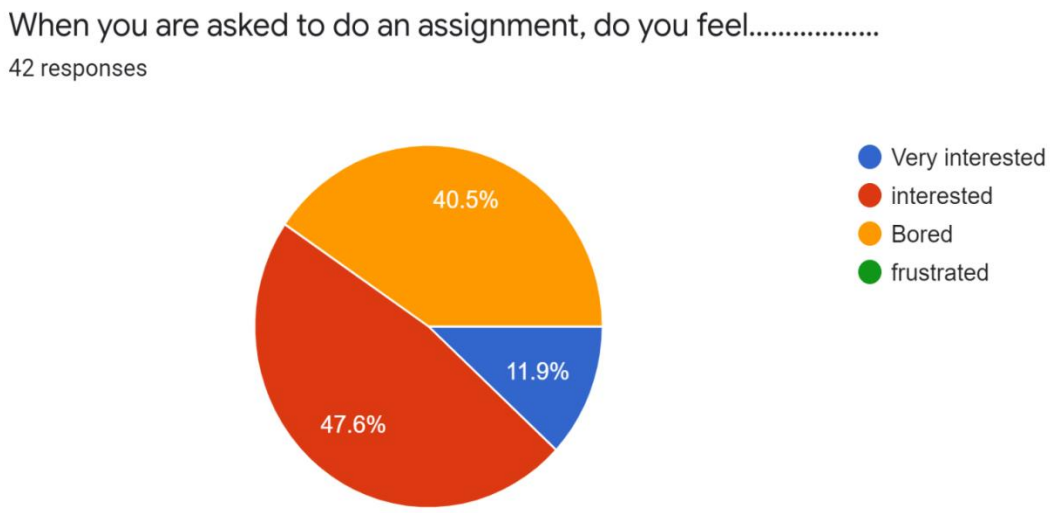


Figure 2.6. Students' Feelings about Assignments

The results above in (figure 2.6) emphasise that students are independent learners since, (47.6%) of the participants said that they feel interested when they are given homework. Besides, (11.9%) of the respondents are very interested in doing their assignments. In contrast, (40.5%) of the informants feel bored and do not like to do their homework.

Q24-I always organise myself and plan before doing my tasks.

Option	**Number**	**Percentage**
Agree	18	42.9%
Disagree	8	19%
Not sure	16	38.1%
Total	42	100%

Table 2.18. Students' Organisation and Planning before Doing Tasks

The table above shows that (42.9%) of the participants use some metacognitive strategies to study independently. But, (38.1%) of the informants mentioned that they do not plan or organise themselves. Nonetheless, (19%) of the

students were not sure if they use certain strategies or not. This means that the vast majority does not use their metacognition to study or they do not know how to use it.

Q25-I enjoy being set to a challenge.

Option	Number	Percentage
Very like me	5	11.9%
Like	26	61.9%
Neutral	6	14.3%
Unlike me	3	7.1%
Very unlike me	2	4.8%
Total	42	100%

Table 2.19. Students' Enjoyment when Being Set to a Challenge

Table 2.19 determines that the vast majority enjoy being set to challenges. This enhances their academic performance**.** (11.9%) of the participants mentioned that their personality do really like challenges. However, (61.9%) of the students responded that it is like them to be set to a challenge. Nevertheless, (14.3%) of the informants remained neutral. This proposes that either they are not sure about their own personality or it depends on the challenge. Nonetheless, (7.1%) of the participants said it is unlike them and (4.8%) of the students answered they hate challenges.

Q26-I plan my time to study effectively.

Option	Number	Percentage
Very like me	5	11.9%
Like me	17	40.5%
Neutral	9	21.4%
Unlike me	10	23.8%
Very unlike me	1	2.4%
Total	42	100%

Table 2.20. Students' Time Planning

Table 2.20 shows that **(**11.9%) of the students opted for "very like me" and (40.5%) of the participants chose "like me". This means that most students plan and manage their time to study effectively. However, (23.8%) of the students responded that they do not manage their time saying it is unlike them. Nonetheless, (2.4%) of the respondents asserted that it is very unlike them. Nevertheless, (21.4%) of the students remained neutral. This indicates that they are not aware to which extent they can manage their time.

Q27-I can organise my Ideas.

Option	Number	Percentage
Agree	34	81%
Disagree	5	11.9%
Not sure	3	7.1%
Total	42	100%

Table 2.21. Students' Organisation of Ideas

Table 2.21 highlights that most students can organise their ideas. (81%) of the participants answered that they can organize their ideas. Whereas, (11.9%) of the informants mentioned that they cannot organise their ideas and (7.1%) of them were not sure. This means that the majority of students can use the information management strategy.

Q28-I master most techniques to learn individually.

Option	Number	Results
Agree	28	66.7%
Disagree	5	11.9%
Not sure	9	21.4%
Total	42	100%

Table 2.22. Students' Mastery of Individual Learning Techniques

The statistics show that 28 students know how to use different strategies to learn individually. Besides, 05 students do not master the techniques of independent learning. In addition, 09 students are not sure if they know how to use them or not. This underlies that most of students know how to study individually, but they need a sort of motivation.

Q29-I always evaluate my learning outcome, and change the way when necessary.

Option	Number	Percentage
Agree	35	83.3%
Disagree	1	2.4%
Not sure	6	14.3%
Total	42	100%

Table 2.23. Students' Evaluation of the Learning Outcome

The table 2.23 shows that (83.3%) of the participants evaluate their learning progress and outcome. This suggests that these students assess their learning frequently and change their way of learning if it is necessary. Nonetheless, (14.3%) of the informants do not evaluate their learning and 2.4% of them are not sure.

Q30-I have better results when I plan, control or evaluate my learning process.

Option	**Number**	**Percentage**
Agree	30	71.4%
Disagree	2	4.8%
Not sure	10	23.8%
Total	42	100%

Table 2.24. Students Results when they Plan, Control, and Evaluate their Learning Process

The results reveal that (71.4%) of the participants agreed that using the metacognitive strategies helps them get better results. It can be said that these students are aware of the positive impact of metacognition on learning. However, (4.8%) of the respondents said that metacognitive skills such as planning, controlling, and evaluating do not have any positive effects on learning. Besides, (23.8%) of the informants responded that they are not sure. It means that either they are using them unconsciously or they do not try to work hard in their learning process.

Q31-I have better results when I learn individually.

Option	Number	Percentage
Agree	30	71.4%
Disagree	5	11.9%
Not sure	7	16.7%
Total	42	100%

Table 2.25. Students' Results when Learning Individually

The statistics show that (71.4%) of the participants highly agreed that independent learning helps them to get better results. (16.7%) were not sure and only (11.9%) disagreed that independent learning helps them improve their academic performance. It means that the majority of students like independent learning and use it in their learning process.

Q32-I feel confident enough about my abilities to study in the right way and learn what I need.

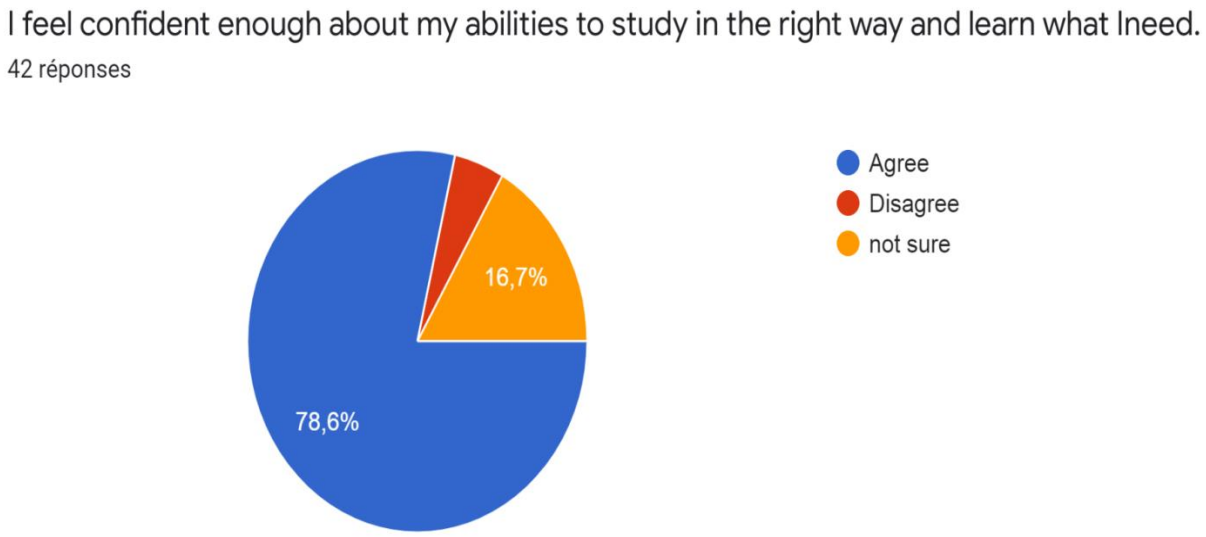


Figure 2.7. Students' Self-confidence about their Abilities

From the figure above, it can be observed that a considerable percentage of students that is (78.6%) are quite confident about their abilities to study properly and

meet their own needs. However, (16.7%) of the participants are not sure about their abilities while only 2 students (4.8%) admitted that they cannot study in the right way and fill their learning gaps. Based on this result, it can be said that the majority of the participants are independent learners and they use the metacognitive knowledge in their learning process.

Q33-Self-motivation is considered as a vital component of successful learning.

Option	Number	Results
Yes	40	95.2%
No	2	4.8%
Total	42	100%

Table 2.26. Students' Opinion on Self-motivation's Importance

The evidence singled out that 40 students agree that self-motivation has a great importance to enhance students' academic achievements and that it is a crucial element of a successful learner. Whilst, only 02 students stated that they do not consider self-motivation as an important component of successful learning.

3.4.1.2. Teachers' Questionnaire Analysis

Section One: General Information

Q1-Teachers' degree and experience.

Option	Number	percentage
Master	4	40%
Magister	3	30%
PhD	3	30%
Total	10	100%

Table 2.27. Teachers' Degree and Experience.

The survey targeted different teachers of English who hold different degrees (Master, Magister and, PHD) .The average teaching experience of the participants is approximately six years. The shortest teaching experience period is two years, and the longest one is fifteen years. From this angle, it can be said that the obtained data about the topic is reliable as the participants are acquainted with students' capacities.

Q2-Students' Level.

Option	Number	Percentage
Pre intermediate	2	20%
Intermediate	6	60%
Advanced	2	20%
Proficient	0	0%
Total	10	100%

Table 2.28. Students' Level

The table above shows that (60%) of the teachers believe that second year students' level of English is intermediate. However, (20%) of the participants opted pre intermediate and another (20%) chose advanced.

Section Two: Teachers' Attitudes Towards Metacognition

Q3. The Most successful learners are strategic ones.

Option	Number	Percentage
Agree	8	80%
Disagree	0	0%
Not sure	2	20%
Total	10	100%

Table 2.29. The Most Successful Learners are Strategic Ones

Table 2.29 demonstrates (80%) of the teachers confirmed that students who use strategies in their learning process are the most successful ones. While, (20%) of them were not sure about it. This indicates that students should depend on their metacognitive knowledge.

Q4. Teachers should constantly motivate their students to use metacognitive strategies**.**

Option	Number	percentage
Agree	9	90%
Disagree	0	0%
Not sure	1	10%
Total	10	100%

Table 2.30. Teachers' Motivation to their Students to Use Metacognitive Strategies

The table above demonstrates that (90%) of the respondents agreed on the fact that teachers should always remind and motivate their students to use metacognitive strategies while studying, since the latter have a positive impact on learning. However, (10%) of the participants were not sure if they should encourage them to use metacognitive strategies or not.

Q5. Successful learners use metacognitive strategies to improve their independent learning.

Option	Number	Percentage
Agree	10	100%
Disagree	0	0%
Not sure	0	0%
Total	10	100%

Table 2.31. The Effectiveness of Strategies on Independent Learning

The table 2.31 shows that (100%) of the participants agreed that the most successful learners are the strategic ones. This implies that students who use strategies either cognitive or metacognitive in their learning process tend to be more successful than the ones who do not use them.

Q6-Metacognitive strategies enhance student's self-regulation, motivation and goal orientation.

Option	Number	Percentage
Agree	10	100%
Disagree	0	0%
Not sure	0	0%
Total	10	100%

Table 2.32. Metacognitive Strategies' Enhancements

The table 2.32 shows that all the teachers agreed that students should use metacognitive strategies to improve their independent learning. In addition, they have admitted that self-regulation, motivation, and goal orientation can be enhanced through metacognition and metacognitive strategies. In this way, they emphasized the positive impact of the metacognitive strategies on learning.

Q7-Metacognitive awareness is a characteristic of an effective learner.

Option	Number	Percentage
Agree	8	80%
Disagree	0	0%
Not sure	2	20%
Total	10	100%

Table 2.33. Metacognitive Awareness is a Characteristic of an Effective Learner

The table 2.33 demonstrates that (80%) of the teachers agreed that metacognitive awareness is one of the main criteria of good learners. This implies that metacognitive awareness is a feature of an operative learner who can manage his multiple intelligences. However, only (20%) of the participants were not sure if the metacognitive awareness can create an effective learner even though they know that it helps in a way or in another.

Q8-To succeed in using the metacognitive strategies students need a teacher's support.

Option	**Number**	**percentage**
Agree	6	60%
Disagree	3	30%
Not sure	1	10%
Total	10	100%

Table 2.34. The Students' Need for Teachers' Support to Use the Metacognitive Strategies

In this question, (60%) of the respondents agreed that students need their teachers' orientation to use their metacognition. While (30%) of the respondents were against the idea, believing that learners can use the metacognitive strategies alone without teachers' support, and (10%) of the teachers were no sure about it.

Q9. Both metacognition and independent learning are of great importance in the learning outcomes.

Option	**Number**	**Percentage**
Agree	10	100%
Disagree	0	0%
Not sure	0	0%
Total	10	100%

Table 2.35 Metacognition and Independent Learning's Importance

In this inquiry, all the teachers strongly agreed on the fact that both metacognition and independent learning are of great importance in the learning. This shows that independent learning and metacognition are two correlated factors that lead to students' success.

Section Three: Teachers Attitudes towards Independent Learning

Q10. When you ask your students to do an assignment they are.

Option	**Number**	**Percentage**
Very interested	0	0
Interested	7	70%
Bored	6	60%
Frustrated	1	10%
Total	10	100%

Table 2.36. Students' Feelings when they Are Given Assignments

The results show that (70%) of the participants said that students are interested when they are asked to do an assignment. Nevertheless, (60%) of the informants responded that students feel bored and do not like to be given homework. However,

(10%) of the informants claimed that their students feel frustrated when given assignments. According to the participants, students have different feelings when they are asked to do an assignment because they are different and it is impossible have only one type of students in a single classroom.

Q11-Your student's main learning problems are.

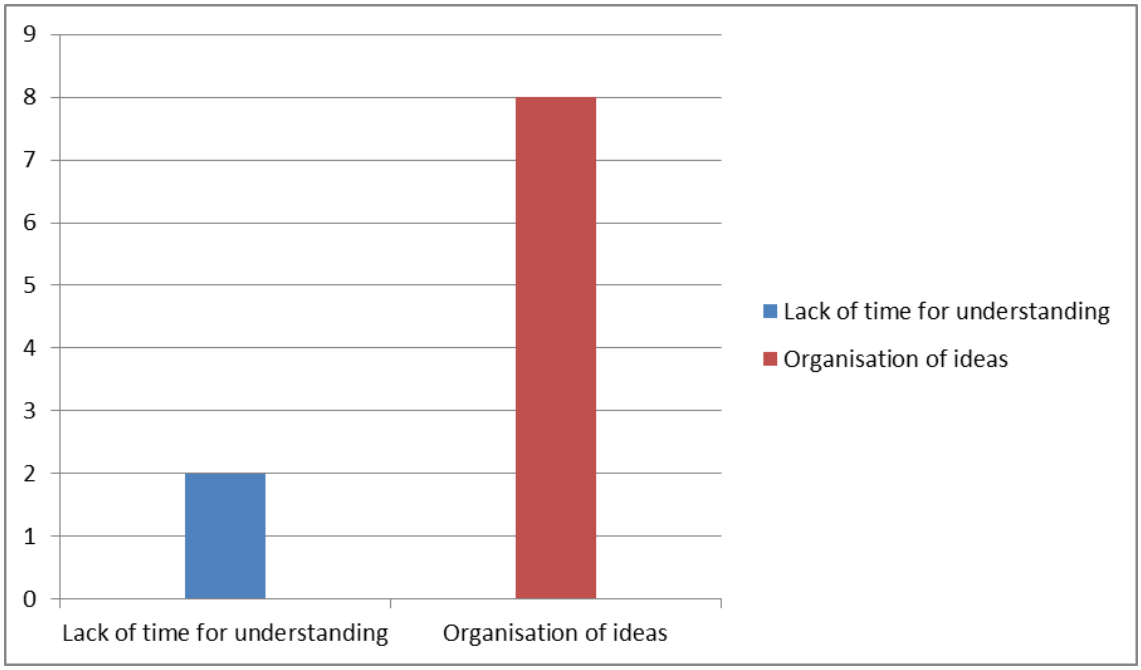


Figure 2.8. The Students Main Learning Problems

The figure above shows that (80%) of the teachers said that students have a problem of organization of ideas. This indicates that students need to be equipped with more metacognitive strategies to organise their ideas and study individually without the excessive need of the teacher's orientation. While, (20%) of the informants mentioned that the lack of time is the biggest obstacle in learning because students need more study time for more interactions with teachers and classmates.

Q12-More suggestions for the students' main problems in learning.

- Poor English language proficiency is a significant challenge that inhibits students' academic success.
- Concentration problems. The lack of concentration inside the classroom results in lower academic performance.

- Lack of motivation. The participants said that students are not motivated and this leads to low productivity.
- Time management and prioritisation problems. The respondents claimed that students have problems managing their time and this causes problems in setting priorities.
- The lack of interest. The informants asserted that students do not show much interest in some modules. This identifies that students learn more when they are interested in the topic.
- The students are teacher-centered learners. The respondents mentioned that students get used to the teacher-centered approach and they depend less on themselves.
- The students are very lazy. They do not revise their lessons and find the lessons' preparation boring or tiring.
- Lack of planning for their studies. The respondents agreed that self-regulation is very important in learning.

Q13-Do you encourage your students to learn independently?

Option	**Number**	**Results**
Yes	9	90%
No	1	10%
Total	10	100%

Table 2.37. Teachers' Encouragement to Learn Independently

As displayed above (90%) of the teachers encourage their students to learn independently using different methods. However, (10%) of the participants said that they do not encourage them to study individually. It can be said that the vast majority of teachers agreed on the fact that independent learning is of a great importance in education and students cannot rely on collaborative or teacher-based learning only.

Q14- Teachers' methods to encourage independent learning.

- Teachers should apply some effective methods of teaching such as “the flipped classroom” which encourages students to read and try to understand the lesson alone.
- Teachers should raise their students' awareness of autonomy of learning, besides elevating their competence of solving learning problems.
- The teaching approach should be changed from teacher-centered to learner-centered approach where the students are considered as active agents who bring their own knowledge.
- Teachers should provide opportunities to self-monitoring and offer icons and examples of attitudes instead of trying to be the inspiration of the learners.
- Teachers should inspire students' motivation for learning, research making and collaboration in classrooms.
- Teachers should encourage self-assessment among their students and teach them to accept positive and negative feedback on their work.
- Teachers should provide resources where students can find extra information and make further research on the given topic.
- Teachers should assign various works that insist on students to learn independently such as opening debates in class in order to encourage the students to talk and participate.
- Teachers should allow students to decide the appropriate method of what they learn.
- Teachers should provide students with only 50% of the learning while the other 50% is assigned homework and group projects that will be done autonomously.

Q15-Which activity do students like more.

Option	Number	Percentage
Studying individually in the classroom	3	30%
Studying collaboratively with classmates in the classroom	6	60%
Be assigned to homework	1	10%
Total	10	100%

Table 2.38. Students' Favourite Activity

The table above shows that and (60%) of the participants thought that students do like studying collaboratively with their classmates. However, (30%) of the respondents noticed that students like to study independently in the classroom. The rest of the participants (10%) said that students like to be assigned to homework instead.

Please, explain why?

- **Studying individually in the classroom:**

Teachers thought that their students like to learn independently for many reasons. First, most students prefer to work alone because working with their classmates seems to consume more of their time and energy. Second, they mentioned that some students do not like collaborative learning because their classmates are not so cooperative. Third, they said that each student has his own personality and the style of learning depends only on the learner himself.

- **Studying collaboratively with classmates in the classroom:**

Most of the teachers said that students prefer collaborative learning over independent learning for many aspects. Firstly, students are so lazy and do not find joy

in learning independently. Moreover, collaborative learning is not really common and it is not used a lot in EFL classrooms thus students find it interesting. Secondly, students can learn better in groups since they can exchange ideas and at the same time, they get more energy and motivation from their classmates. Finally, learners prefer studying in groups to change the boring mode in the classroom.

- **Be assigned to homework:**

Some students enjoy doing their assignments at home and they can understand the lesson through homework more than in the classroom.

2.6. Discussion of the Main Findings

A clear support for the hypothesis and the research questions is shown through the students' questionnaire. The data gathered from the research tool showed the intermediate level of the students' metacognitive knowledge. The findings revealed that the majority of the learners do not have problems concerning declarative and procedural knowledge since they are aware of their abilities, their points of strengths and weaknesses. Yet, they lack the strategy knowledge. Probably because they do not have enough knowledge about the learning strategies and how to use them appropriately.

Moreover, the results demonstrated a moderate level of the metacognitive regulation in the students' learning. This indicates that the learners still need to improve the planning, monitoring, and evaluation of their learning since the actual and conscious regulation of the learning process is through metacognitive regulation.

The findings also revealed that many students were not sure about their choices concerning metacognitive knowledge and metacognitive regulation. This suggests that they are not fully aware of their metacognitive abilities. It may also indicates that the students are using their metacognitive skills however unconsciously, therefore teachers need to teach as well as motivate their students to use and develop their metacognitive skills and learning strategies in order to become more self-regulated and have better academic achievements.

In addition, teaching and learning are two ongoing processes that require consistency and creativity. Working collaboratively and individually is related to learners' style of learning as well as their intelligences. In other words, learners perceive information differently due to their different mindsets. Hence, for those who prefer to learn individually, they have their own strategies to read, listen, speak, and write as they adopt some techniques to think critically and analytically. That is why, they acquire the ability to learn alone in isolation from others' opinions or any external intervention. Collaborative working is also effective and adaptable because exchanging ideas, thoughts, opinions and asking questions, providing illustrations and explanations are to be considered as a solid construction that enables learners to develop new attitudes toward what is being learned. Nevertheless, the majority of second year EFL students at Medea University approved that learning independently has a great importance to achieve better results, in spite of the techniques they are using. In addition, students at Medea University have been forced to learn independently especially ever since the pandemic of Covid-19.

With respect to teachers' answers that helped the researchers to gather relevant answers. All teachers agreed that metacognition and the metacognitive strategies are the key of academic achievement. In spite of the importance of collaborative learning, individual learning is a necessity and students should stop depending on teachers only in their studies. The teachers also suggested some strategies to improve self-regulated learning via providing only 50% of the lesson while the rest 50% should be assigned to students and then being corrected by teachers. This means that teachers are facilitators and guides only. Furthermore, they have to use some methods and strategies such as the flipped classroom model, and students-centered approach to encourage students to use their metacognitive skills and thus encourage the autonomy of learning.

2.7. Pedagogical Implications and Recommendations

Findings of the current study showed that second year EFL students at Medea University have the desire to study independently as well as they have the

metacognitive knowledge about themselves. However, they need to be guided by their teachers to develop their metacognitive skills; therefore, the following recommendations can be suggested for EFL teachers:

- Teachers need to support their students to be more independent.
- Teachers need to encourage their students to use and develop their metacognitive knowledge.
- Most of the students have difficulties with the learning strategies , therefore teachers need to provide their learners with some effective strategies of learning, e.i., when, why and how to use the learning strategy and how can a specific strategy help and facilitate solving a specific task.

In order to develop students' metacognition the researchers suggest the following:

- Establish an environment using a Problem Based Learning (student-centered approach) that supports metacognition in the classroom through constant and deliberate communication, collaboration and feedback.
- Give students practice in identifying confusions to develop their monitoring and evaluation.
- Engage students in critical thinking and active learning through offering opportunities for cognitive growth and higher-level thinking.
- Divide the lesson into four parts: prior knowledge, planning, during the task , and the evaluation or reviewing.
- Use of visual representation in the classroom: Diagram, flowchart, thinking map.

For further researches, the following recommendation are suggested:

Future research could conduct another investigation using an experimental method in which the investigator measures and compares the metacognitive level of students with different learning outcomes, or compare students in different learning level (e.g. First year students versus Master 2 students). In addition, the data collection

tool used in this study was a questionnaire. It is recommended to use the think-aloud method to have a better idea about the participants' thoughts and ways of thinking.

2.8. Limitations of the Study

Despite its supposedly careful methodological design, there are a number of limitations in this study.

First, this study could target only 42 second year EFL students and 10 EFL teachers at Yahia Fares University of Medea due to time constraints. This limits the generalisations of the findings. Accordingly, the researchers believe that the results would be more reliable if the sampling was larger.

Second, the researchers used only a few questions from Schraw and Dennison' Metacognitive Awareness Inventory in order to measure the participants' metacognitive awareness; however, better results would be obtained if the researchers used the full version of the inventory.

2.9. Conclusion

This chapter was dedicated to the presentation of the data gathering tools, the research methodology, the population, and the discussion of the main findings. It is also an endeavor to answer the research questions and hypotheses through the analysis of the gathered data. Based on the results, it is concluded that the main hypotheses of the research are valid. In addition, the results proved that the metacognitive strategies are of a great importance to EFL students' learning autonomy.

General Conclusion

This study examined the frequency of metacognitive strategy use in the English learning process of Algerian EFL students at Medea University. According to the results, there is a convincing indication that the frequency of meta-cognitive strategies employed correlates with students' English competence. When students employ metacognitive techniques more frequently, their independent learning capacity improves significantly, which leads to higher results and gains. Generally, the students who tend to use more meta-cognitive strategies in the English learning process are the high proficiency students, despite of the fact that the frequency is not a satisfying one so that to the empirical and theoretical studies as well, that has direct claiming about the meta-cognitive strategies which can enhance learner autonomy and language proficiency.

From the details included earlier, students need to pay as much attention as demanded to the learning process and different strategies and styles of learning. In addition, learning strategies instruction have to be added to regular classroom teaching. Teachers might encourage students to use metacognitive skills in their daily lives as well as in their studies by creating some sort of self-access assignment that does not deviate from the curriculum.

To help students learn more effectively, it was not familiar to teachers to handle some beneficial learning instruction even though they had already realised the main importance of learning strategies. In fact, the major obstacle to improve learning efficiency both in and out of the classroom is the lack of learning techniques and necessary incentive mechanisms.

Based on the results obtained from the questionnaires, having the metacognitive skills means that students are able to recognize their own cognitive abilities, direct their performance, understand what caused their success or failure, and learn new strategies. It can also help them to learn how to revise, gain more time, and get better results. This is because the metacognitive strategies optimize their basic cognitive processes, including memory, attention, activation of prior knowledge, and the ability to solve and complete tasks. Moreover, both students and teachers must take

advantage of the available resources to practice learning strategies, to achieve the shifting goals of responsibility about learning from teachers to learners, as well as making as many students as possible aware and potential to learn and exercise their brains to the fullest extent eventually.

List of References

Akamatsu, D., Nakaya, M., & Koizumi, R. (2019). Effects of Metacognitive Strategies on the Self-regulated Learning Process: The Mediating Effects of Self-efficacy. *Behavioral Sciences*, 9(12), 128.

Anderson, N. J. (2002). The Role of Metacognition in Second/Foreign Language Teaching and Learning. ERIC Digest. Washington DC: ERIC Clearinghouse on Languages and Linguistics.

Anderson, L., Krathwohl, D., Airasian, P., Cruikshank, K., Mayer, R., Pintrich, P., Raths, J., Wittrock, M. (2001).A Taxonomy for Learning, Teaching and Assessment: A Revision of Bloom's Taxonomy of Educational Objectives. New York: Longman.

Arar, S. (2015). Developing Metacognitive Awareness in Writing: An Instructional Framework for LMD EFL Students. (Doctoral Thesis) Abou Bakr Belkaid University, Tlemcen.

Babbs, P. J., & Moe, A. J. (1983). Metacognition: A key for independent learning from text. The Reading Teacher, 36(4), 422-426.

Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In P. D. Pearson, R. Barr, M. L. Kamil and P. Mosenthal (Eds.), Handbook of Reading Research (pp. 353-394). New York: Longman.

Bandura, A. (1986). Social Foundations of Thought and Action: A Social Cognitive Theory. Englewood Cliffs, NJ:

Biggs, J. (1999). What the Student Does: Teaching for Enhanced Learning. *Higher Education Research & Development*, 18(1), 57-75.

Blakey, E., & Spence, S. (1990). Developing Metacognition. *Emergency Librarian, 17(5), May-June 1990, 11- 14.*

Candy, P. C. (1991). Self-Direction for Lifelong Learning. A Comprehensive Guide to Theory and Practice. Jossey-Bass, 350 Sansome Street, San Francisco, CA 94104-1310.

Chamot, A.U., Barnhardt., Beard El-dinary, P., & Robbins, J. (1999). The learning strategies handbook. New York: Addison Wesley Longman, Inc.

Cross, D. R., & Paris, S. G. (1988). Developmental and Instructional Analyses of Children's Metacognition and Reading Comprehension.*Journal of Educational Psychology*, 80, 131.

Devine, J. (1993). The Role of Metacognition in Second Language Reading and Writing. In J.G. Carson &Leki, I (Eds.), Reading in the composition.

Dörnyei, Z. (2007*), Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies*. Oxford: Oxford University Press.

Downing, K. (2012). The Impact of Moving Away from Home on Undergraduate Metacognitive Development.*Current Topics in Children's Learning and Cognition*, 137.

Efklides, A. (2008). Metacognition Defining its Facets and Levels of Functioning in Relation to Self-regulation and Co-regulation. *European Psychologist*, 13(4), 277-287. doi10.1027/1016-9040.13.4.277.

Elliott, J. (1991) Action Research for Educational Change. Open University Press, Buckingham.

Flavell, J. H. (1976). Metacognitive Aspects of Problem Solving. In L. B. Resnick (Ed.), *The Nature of Intelligence* (pp. 231-236). Hillsdale, NJ: Erlbaum.

Flavell, J. H. (1979) Metacognition and Cognitive Monitoring: A New Area of Cognitive Developmental Inquiry. *Journal of American Psychologist*,33 , pp. 906-911.

Flavell, J. H., Green, F. L., Flavell, E. R., & Grossman, J. B. (1997). The Development of Children's Knowledge About Inner Speech. *Child Development*, 68(1), 39-47.

Garrison, D. R. (1997). Self-directed Learning: Toward a Comprehensive Model. *Adult Education Quarterly*, 48(1), 18-33.

Herber, H. L., & Nelson-Herber, J. (1987). Developing Independent Learners. Journal of Reading, 30(7), 584-588.

Holec, H., 1981: Autonomy and foreign language learning. Oxford: Pergamon. Strasbourg: Council of Europe.

Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007).Toward a Definition of Mixed Methods Research. *Journal of Mixed Methods Research*, 1(2), 112–133.

Kasper, L. (1997). Assessing the Metacognitive Growth of ESL Student Writers Metacognitive knowledge in EFL writing. Language Teaching and Learning. Investigator's Brochure, CRF, ICF, Study Protocol, Reports oct-clinicaltrials.com

Kerlinger, F. (1986). Foundation of behavioural research (3rd ed.) New York: Holt, Rinehart, and Winston.

Kiewra, K. A. (2002). How Classroom Teachers Can Help Students Learn and Teach Them How to Learn. Theory Into Practice, 41(2), 71–80. doi:10.1207/s15430421tip4102_3 .

Knowles, M. (1975). Self-directed learning: A guide for learners and teachers. New York: Cambridge Book.

Kuhn, D., & Dean, Jr, D. (2004). Metacognition: A Bridge Between Cognitive Psychology and Educational Practice. Theory Into Practice, 43(4), 268-273.

Kowalke, L. (1998). Student Self-Assessment: Thinking About Thinking. Methods that Matter, 233-242.

Lai, E. R. (2011). Critical thinking: A literature review. Pearson's Research Reports, 6(1), 40-41.

Leavy, P. (2017). Research design: Quantitative, qualitative, mixed methods, arts-based, and community-based participatory research approaches. Guilford Publications.

Livingston, J. A. (2003). Metacognition: An Overview.

Lu, Z., & Liu, M. (2011). Foreign Language Anxiety and Strategy Use: A Study with Chinese Undergraduate EFL Learners. Journal of Language Teaching & Research, 2(6).

Marantika, J. E. R. (2021). Metacognitive Ability and Autonomous Learning Strategy in Improving Learning Outcomes. *Journal of Education and Learning (EduLearn)*, 15(1), 88-96.

Martinez, M. E. (2006). What is Metacognition? .*Phi Delta Kappan*, 87(9), 696-699.

Meyer, B., Haywood, N., Sachdev, D., & Faraday, S. (2008). What is independent learning and what are the benefits for students. London: Department for Children, Schools and Families Research Report, 51, 1-6.

Muhid, A., Amalia, E. R., Hilaliyah, H., Budiana, N., & Wajdi, M. B. N. (2020). The Effect of Metacognitive Strategies Implementation on Students' Reading Comprehension Achievement. International Journal of Instruction, 13(2), 847-862.

Mynard, J., & Sorflaten, R. (2003). Learner independence in your classroom. Teachers, Learners and Curriculum, 1(1), 34-38.

Nisbet, J., & Shucksmith, J. (1986).Learning strategies. London: Routledge and Kegan Paul.

Noushad, P. P. (2008). Cognitions about cognitions: The theory of metacognition. ERIC Clearinghouse of Educational Research. Nuffield Review Higher Education Focus Groups Preliminary Report Stephanie.

Panadero, E. (2017). A Review of Self-regulated Learning: Six Models and Four Directions for Research. Frontiers in Psychology, 8. https://doi.org/10.3389/fpsyg.2017.00422.

Paris, S. G. & Winograd, P. (1990).Promoting Metacognition and Motivation of Exceptional Children. *Remedial and Special Education*, 11(6), 7-15.

Peters, M. (2000). Does constructivist epistemology have a place in nurse education? Journal of nursing education, 39(4), 166-172.

Pintrich, P.R. (2000). The role of goal orientation in self-regulated learning.In M.Boekaetrs, P.R. Pintrich, & M. Zeidner (Eds), Handbook of self-regulation. San Diego: Academic.pp.451-502.

Rahimi, M., & Katal, M. (2012). Metacognitive Strategies Awareness and Success in Learning English as a Foreign Language: An Overview. *Procedia-Social and Behavioral Sciences*, 31, 73-81.

Rheinberg, F. Regina V., & Bruce D.B. (2000). Motivation and Self-Regulated Learning. *Journal of Advances in Psychology*, 131, 81-108.

Duckworth, R., & Ramer, K. (2009). Fostering learner independence: An essential guide for K-6 educators. Corwin Press.

Ritchhart, R., Church, M., & Morrison, K. (2011). Making thinking visible: How to promote engagement, understanding, and independence for all learners. John Wiley & Sons.

Rivers, W. P. (2001). Autonomy at all costs: An ethnography of metacognitive self-assessment and self-management among experience language learners. Modern Language Journal, 86(2), 279-290.

Schraw, G. (1998). Promoting metacognitive awareness. Instructional Science 26: 113–125.

Schraw, G., & Moshman, D. (1995).Metacognitive Theories. *Educational psychology review*, 7(4), 351-371.

Schraw, G., Crippen, K. J., & Hartley, K. (2006).Promoting Self-Regulation in Science Education: Metacognition as Part of a Broader Perspective on Learning. Research in Science Education, 36(1-2), 111–139. https://doi.org/10.1007/s11165-005-3917-8.

Schunk, D. H. (2012).Learning Theories: An Educational Perspective.(6th. Ed.). Boston, MA: Pearson.

Schunk, D. H., & Pajares, F. (2004). Self-efficacy in Education Revisited: Empirical and Applied Evidence.

Schunk, D. H., & Ertmer, P. A. (2000). Self-regulation and Academic Learning: Self-efficacy Enhancing Interventions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation*. Academic Press. 631–649.https://doi.org/10.1016/B978-012109890-2/50048-2.

Shuell, T. J. (1986). Cognitive Conceptions of Learning. Review of Educational Research, Vol. 56, No. 4, pp. 411-436.

Tok, H., Özgan, H., &Döş, B. (2010). Assessing Metacognitive Awareness and Learning Strategies as Positive Predictors For Success In a Distance Learning Class.

Vandergrift, L., Goh, C. C. M., Mareschal, C. J., & Tafaghodtari, M. H. (2006). The Metacognitive Awareness Listening Questionnaire: Development and Validation. *Language Learning*, 56(3), 431-462.

Wang, Z., & Han, F. (2017). Metacognitive knowledge and metacognitive control of writing strategy between high-and low-performing Chinese EFL writers. Theory and Practice in Language Studies, 7(7), 523.

Wenden, A. L. (1998). Metacognitive knowledge and language learning. Applied Linguistics; 19(4), 515-537.

Wenden, A.L. (2001). Metacognitive Knowledge in SLA: The neglected Variable. In M.P. Breen (Ed). Learner contributions to language learning: New Directions in Research. Harlow, Essex: Pearson Education Limited. 44-64.

Wilde, S., Wright, S., Hayward, G., Johnson, J., & Skerrett, R. (2006). Nuffield review higher education focus groups preliminary report. *The Nuffield Review of 14-19 Education and Training*.Onwuegbuzie, A. J., & Leech, N. L. (2004).Enhancing the interpretation of "significant" findings: The Role of Mixed Methods Research. The Qualitative Report, 9(4), 770-792.

Woolley, G. (2011). Self-Regulation, Metacognition and Engagement Reading Comprehension: Assisting Children with Learning Difficulties. Springer Netherlands. 147-161.

Yin, R. K. (2002). Case Study Research: Designs and Methods, (3rd ed).Thousand Oaks, California: Sage Publications.

Zimmerman, B. J. (2002). Becoming a Self-Regulated Learner: An Overview. Theory into Practice, 41(2), 64–70. https://doi.org/10.1207/s15430421tip4102_2

Zohar, A. (2004). Elements of teachers' pedagogical knowledge regarding instruction of higher order thinking. Journal of science teacher education, 15(4), 293-312.

Appendices

Appendix I

Students' Questionnaire

This questionnaire is an attempt to collect the data needed for the sake of accomplishing a master dissertation in which we are investigating "the effect of metacognition on independent learning" .Your willingness to help is greatly appreciated. It is that kind of flexibility and dedication that will help this survey to be more credible.
Rest assured that the information you share here is confidential.
Thank you for taking the time and effort to respond to this questionnaire.

Section One: General Information

Please answer the following questions in the spaces provided, circle or tick the most appropriate option.

1. Gender:

   a. Male
   b. Female

2. Age:

   a. 18-20
   b. above 21

3. What type of Baccalaureate do you hold?

   a. Languages
   b. Sciences
   c. literature

4. Was it your choice to study English?

   a. Yes
   b. No

c. If “No” please explain:

5. Thinking about your first year at Yahia Fares University, please rate how you have find it:

a. Easy
b. normal
c. Hard
d. Challenging

Section Two: Students Attitudes towards Metacognition

6. My time management is:

a. Good
b. not bad
c. bad

7. I can monitor and control my own way of learning:

a. Agree
b. Disagree
c. Not sure

8. I can figure out if I need more time to learn:

a. Agree
b. Disagree
c. Not sure

9. I understand my intellectual strengths and weaknesses:

a. Agree
b. Disagree
c. Not sure

10. -I understand my intellectual strengths and weaknesses:

a. Agree
b. Disagree
c. Not sure

11. I try to use strategies that have worked in the past:

    a. Agree
    b. Disagree
    c. Not sure

12. I use different learning strategies depending on the situation:

    a. Agree
    b. Disagree
    c. Not sure

13. I ask myself questions about how well I am doing while learning something new:

    a. Agree
    b. Disagree
    c. Not sure

14. I slow down when I encounter important information:

    a. Agree
    b. Disagree
    c. Not sure

15. I am a good judge of how well I understand something:

    a. Agree
    b. Disagree
    c. Not sure

16. I learn more when I am interested in the topic:

    a. Agree
    b. Disagree
    c. Not sure

17. I set my goals and objectives in advance to improve my learning:

    a. Agree
    b. Disagree

c. Not sure

18. A motivational learning climate to achieve successful learning plan requires: (You may tick more than one option)

a. Harmony between students
b. A good relationship between teacher and students
c. studying for many hours
d. using certain strategies to select the most effective information
e. The use of positive and effective feedback
f. Other: Please, specify:

……..

……

…….

Section Two: Students Attitudes towards Individual Learning

19. What is your favorite skill in English?

a. writing
b. reading
c. speaking
d. listening

20. Your level in English is:

a. beginner
b. Elementary
c. intermediate
d. advanced

21. Do you consider yourself as:

a. collaborative learner
b. independent learner
c. Both

22. I enjoy finding information about new topics on my own:

a. Very unlike me
b. unlike me
c. Neutral
d. like me
e. Very like me

23. When you are asked to do an assignment, do you feel:

a. Very interested
b. Interested
c. Bored
d. Frustrated

24. I always organise myself and plan before doing my tasks:

a. Agree
b. Disagree
c. Not sure

25. I enjoy being set to a challenge:

a. Agree
b. Disagree
c. Not sure

26. I plan my time to study effectively:

a. Agree
b. Disagree
c. Not sure

27. I can organise my Ideas:

a. Very unlike me
b. Unlike me
c. Neutral

d. like me
e. Very like me

28. I master most techniques to learn individually:

a. Very unlike me
b. Unlike me
c. Neutral
d. Like me
e. Very like me

29. I always evaluate my learning outcome, and change the way when necessary:

a. Agree
b. Disagree
c. Not sure

30. I have better results when I plan, control or evaluate my learning process:

a. Agree
b. Disagree
c. Not sure

31. I have better results when I learn individually:

a. Agree
b. Disagree
c. Not sure

32. I feel confident enough about my abilities to study in the right way and learn what I need:

a. Agree
b. Disagree
c. Not sure

33. Self-motivation is considered as a vital component of successful learning:

a. Agree
b. Disagree

c. Not sure

34. Please, add any further comment or suggestion.

……

……

……

Appendix II

Teachers' Questionnaire

Dear teachers,

This questionnaire is part of a research work on "The effect of Metacognition on Independent Learning". We would be grateful if you could fill in this questionnaire. Your valuable input will be of great help and importance for reaching the aim of our study.

Please, tick (✔) the appropriate box or give a full statement when necessary.

Thank you, in advance, for your time and collaboration.

Section One: General Information

1. Degree(s) held:

   a. Master
   b. Magister
   c. PhD

2. How long have you been teaching in University?

   - ..... years .

3. Do you think your student's level in English is

   a. Pre intermediate
   b. intermediate
   c. advanced
   d. proficient

Section Two: Teachers Attitudes Towards Metacognition

4. The most successful learners are strategic ones.

a. Agree
b. Disagree
c. Not sure

5. Teachers should constantly motivate their students to use metacognitive strategies.

a. Agree
b. Disagree
c. Not sure

6. Successful learners use metacognitive strategies to improve their independent learning.

a. Agree
b. Disagree
c. Not sure

7. Metacognitive strategies enhance students' self-regulation, motivation and goal Orientation

a. Agree
b. Disagree
c. Not sure

8. Metacognitive awareness is a characteristic of an effective writer

a. Agree
b. Disagree
c. Not sure

9. To succeed in using Metacognitive strategies students need a teacher's support.

a. Agree
b. Disagree
c. Not sure

10. Both metacognition and independent learning are of great importance in learning Outcome

a. Agree
b. Disagree
c. Not sure

Section Three: Teachers Attitudes towards Independent Learning

11. When you ask your students to do an assignment, they are:

a. Very interested
b. Interested
c. Bored
d. Frustrated

12. Your students' main learning problems are:

a. Lack of time for understanding
b. Organisation of ideas
c. Other: Please, specify: .....

13. Do you encourage your students to learn independently?

a. Yes
b. No
c. If "Yes", please explain how ?

.....

14.Which of the following activities do students like more?

a. Studying individually in the classroom
b. Studying collaboratively with
c. classmate(s) in the classroom
d. Be assigned homework

15. Please, explain why?

.....

.....

الملخص

يعرف مصطلح ما وراء المعرفة على نطاق واسع على أنه قدرة الأفراد على فهم وتنظيم العمليات المعرفية الخاصة بهم. تعتبر مهارة أساسية للتعلم المنظم ذاتيًا لأنها تساعد المتعلمين في إدراك تعلمهم الفردي.

ومن ثم ، فإن هذه الدراسة هي تلبية للحاجة الملحة لتوعية الطلاب باستراتيجيات ما وراء المعرفية التي تسهل تعلمهم الفردي. يستكشف ما إذا كانت هناك علاقة بين ما وراء المعرفة والتعلم المستقل. بالإضافة إلى ذلك ، فإنه يفحص تأثير المعرفة ما وراء المعرفية والمعرفة التنظيمية على التعلم المستقل وكذلك على التحصيل الدراسي للطلاب.

هذا العمل البحثي عبارة عن دراسة حالة لـ 42 طالبًا في السنة الثانية من طلاب اللغة الإنجليزية كلغة أجنبية في قسم اللغة الإنجليزية بجامعة المدية بالجزائر. يستخدم طريقة مختلطة ، بما في ذلك النهجين الكمي والنوعي. تم جمع البيانات من خلال استبيانين تم إجراؤهما لكل من طلاب اللغة الإنجليزية كلغة أجنبية والمعلمين في جامعة المدية. كشفت النتائج أن الطلبة يستخدمون استراتيجيات ما وراء المعرفية والتنظيم الذاتي في تعلمهم ولكن بشكل غير كافٍ. بالإضافة إلى ذلك ، أظهرت النتائج أداءً أعلى في معرفة الإدراك مقارنة بالأداء في تنظيم الإدراك. أخيرًا ، أظهرت النتائج أن معظم المشاركين يستخدمون استراتيجيات ما وراء المعرفية في تعلمهم المستقل. هذا يعني أن التعلم المستقل واستراتيجيات ما وراء المعرفية هما عاملان مترابطان. الأهم من ذلك ، أثبتت النتائج أن ما وراء المعرفي.