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**Investigating the Relationship between English as a Foreign
Language Students' Self-Regulation and Their Classroom Engagement
The Case of Master Students of English at Biskra University**

Dissertation submitted in partial fulfilment of the requirements for a
Master Degree in Sciences of Language

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Declaration

I, KOUIDRI Elhadja Amina, hereby declare that this master dissertation, entitled Investigating the Correlation Between Students' Self-Regulation and Their Classroom Engagement, is my original work and has been written independently under the guidance and supervision of Ms. Kenza MERGHMI. All sources used, including books, articles, and electronic sources, have been duly acknowledged and referenced.

I affirm that this work has not been previously submitted for any other academic qualification or degree at any institution. The findings, interpretations, and conclusions presented in this study are based on my own research and analysis.

Furthermore, I declare that all ethical considerations, such as obtaining informed consent from research participants and maintaining confidentiality, have been carefully addressed and followed throughout the research process.

I hereby grant permission to Mohamed Khider the university of Biskra to archive and make this work available to the public, both in print and electronic formats, for educational and research purposes.

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Date

Dedication

Thank you God for your continuous blessings throughout this journey and for giving me the strength, health, and patience to be able to complete this work.

To my beloved parents, this dedication is a small gesture to express my deepest gratitude for your unwavering love, endless support, and sacrifices. My love for you knows no bounds.

To my closest companion since day one, to my beloved soulmates, my beloved sisters who are two halves of the sun that warms me, Halima and Khadidja.

To my little sisters, Soumia and Hiba.

To my dearest ones, my precious brothers, Abdellatif, Mohammed, Oussama, and Ahmed.

I am blessed and beyond grateful to have you as my family. May Allah bless you and keep you safe and protected whenever you are!

To my loyal friends, this dedication is a tribute to the cherished memories we have created, the laughter we have shared, and the unwavering support we have offered each other. As we continue our journey together, I am excited to see what the future holds and to create many more beautiful moments together.

To all those who dare to hope, dare to forgive, and dare to live despite it all.

Last but not least, to me!

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Abstract

Classroom engagement plays a crucial role in shaping the learning outcomes and overall academic success of students. Similarly, self-regulation has been recognized as a key determinant of students' achievements. Recognizing the significance of these two constructs the current study delves into these two notions together. It investigates the possible relationship between EFL master students' self-regulation and their classroom engagement at Biskra University. Therefore, the primary objective of this research is to investigate whether a relationship exists between self-regulation and students' classroom engagement among EFL master students enrolled at Biskra University. Additionally, this study seeks to uncover the self-regulation strategies employed by EFL students and gain insights into the active participation strategies in classroom activities. Furthermore, the study highlights Biskra University EFL teachers' perceptions of students' engagement in relation to self-regulation. To achieve comprehensive findings, a mixed method approach was adopted, ensuring a robust interpretation and description of the collected data. The study utilized two main data collection tools: a semi-structured questionnaire administered to 20 EFL master one students and a semi-structured interview conducted with 5 EFL university teachers. The findings of this study reveal a positive relationship between self-regulation and classroom engagement among EFL master students. Moreover, the research provides valuable insights into the diverse self-regulation strategies employed by students and the effective approaches utilized to enhance engagement. Additionally, the results highlight Biskra University EFL teachers' perceptions on EFL master students' classroom engagement in relation to self-regulation. This understanding has the potential to improve teaching practices, foster self-regulatory skills, and promote student engagement within EFL learning contexts.

Key words: EFL students, Self-regulation, Students' classroom engagement.

List of Abbreviations and Acronyms

APA: American Psychology Association

ATM: Attitudes towards Mathematics Survey

CEC: Classroom Emotional Climate

EvsD: Engagement vs Disaffection with Learning

EFL: English as a Foreign Language

ESM: Experience Sample Measurement

I.e.: Id est (it means)

MBI-GS: Maslach-Burnout Inventory Survey

PBL: Problem-Based Learning

SDT: Self-Determination Theory

SRL: Self-Regulated Learning

SR: Self-Regulation

SE: Student Engagement

SEI: Student Engagement Instrument

SCE: Students' Classroom Engagement

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General Introduction

1. Introduction

Academic outcomes and achievements have emerged as a central focus for educators, researchers, and students alike, reflecting the commitment to attain proficiency in spoken and written English. The inability to plan and structure thoughts and conversations is commonly associated with social communication and behavioral deficiencies, but it also frequently coincides with academic shortcomings. Consequently, these deficits in social communication, behavior, and academia pose significant challenges that can lead to academic underachievement and even a potential discontinuation of the educational journey. Recognizing the importance of addressing these issues, educators and researchers have devoted attention to the development of strategies that foster student motivation, organization, and engagement throughout the learning process. Numerous studies and research papers have been conducted in pursuit of this objective, resulting in the establishment of various theories and strategies. In the contemporary educational context, there is a growing emphasis on the development and implementation of effective pedagogical approaches to promote optimal learning outcomes. Educators are actively engaged in seeking ways to enhance student engagement and academic achievement by comprehending the factors that shape students' active participation in the classroom. Notably, two variables have garnered significant attention as fundamental determinants of students' educational experiences: self-regulation and classroom engagement.

2. Statement of the Problem

Students' classroom engagement has been widely recognized as a crucial aspect of effective teaching and learning. It has been studied extensively in educational research as it

plays a significant role in students' academic achievement and overall educational experience and success. In the same vein, Students' self-regulation is another key construct that has garnered considerable attention in educational psychology, educational and related fields. In fact, Self-regulation has been found to be a critical predictor of academic success and lifelong learning skills. Nonetheless, there is a noticeable gap in comprehensive research that concurrently investigates self-regulation and student engagement in the classroom. Consequently, the present study aims to address this knowledge gap by investigating the relationship between self-regulation and student engagement in the classroom among EFL master students at Biskra University. Therefore, the current study is an attempt to shed light on the possible association between self-regulation and classroom engagement.

3. Research Aim and Objectives

The research aims to investigate the possible correlation between self-regulation and classroom engagement among EFL master students. The objectives of the study include investigating: the self-regulation strategies employed by EFL master students, and the strategies utilized by students to actively engage in the classroom. Besides, it endeavors to highlight Biskra University teachers' perceptions of students' engagement in relation to self-regulation. By addressing these objectives, the study aims to enhance our understanding of how self-regulation and classroom engagement intersect in the context of EFL master's education.

4. Research Questions

the current study seeks to answer the following research questions:

1. What is the possible relationship between Biskra University EFL master students' self-regulation and their classroom engagement?

2. What are the self-regulation strategies employed by EFL master students at Biskra University?
3. What strategies do EFL master students at Biskra University actively use to engage in the classroom?
4. How do teachers' at Biskra University perceive students' engagement in relation to self-regulation?

5. Rationale and Study Description

The following overview details the recommended procedures for carrying out the study, and gathering necessary data.

A mixed method approach is opted to be used in this study in order to generate a robust description and interpretation of the data, and to make quantitative results more understandable. Additionally, it is used in this academic work to obtain multiple perspectives in order to develop a comprehensive understanding and to help explain statistical results in greater depth.

Data collection method takes place in the University of Biskra where the participants are situated. Master one students respond to the questionnaire in a written form. After that, the questionnaire's data will be analyzed through descriptive statistics using the software SPSS. Nevertheless, the university teachers' responses are recorded, then they will be transcribed and analyzed thematically.

It is important to mention that gender and age are not considered in the current study's analysis or interpretation.

6. The Research Methodology for this Study

This research adopts a mixed method approach, combining qualitative and quantitative research methods within a single study. Given the nature of the main topic, it is necessary to gather and evaluate both qualitative and quantitative data in order to enhance understanding of the phenomenon and address research questions effectively. This mixed approach contributes to the overall credibility of the research findings.

Within this framework, a semi-structured questionnaire and semi-structured interviews are employed as data collection tools, with the data collection process taking place at Biskra University where the participants are enrolled. The interviews are conducted using audio recording to capture the participants' oral responses to the interview questions, while the participants responding to the questionnaire do so in a written format.

Regarding the data analysis, the responses obtained from the students' semi-structured questionnaires are subjected to quantitative analysis using descriptive statistics in the software SPSS. Conversely, the data derived from the teachers' interviews are thematically analyzed to identify recurring themes and patterns.

7. Population and Sampling Technique

In terms of sampling methods, the researcher purposefully chose appropriate individuals for this study. The study concentrated on a sample of EFL master's students. This decision was influenced by two major elements. For initially, these students had prior knowledge of the variables addressed in this study. Second, they exhibit a higher level of maturity than undergraduate students. As a result, EFL master's students were deemed

appropriate for inclusion in this research work. In addition, five EFL university teachers specializing in applied linguistics and have long teaching experience were chosen as part of the sample to supplement the study. In this sense, the sample consisted of 20 EFL students and 5 EFL university teachers.

8. Significance of the Study

The significance of this study lies in its investigation of the relationship between self-regulation and classroom engagement among EFL master students at Biskra University. By reviewing and summarizing previous research on self-regulation and classroom engagement, this study will establish a significant foundation and provide a comprehensive understanding of these concepts. Additionally, relevant theories will be included to shed light on the main research topic. Furthermore, this research aims to uncover the processes and strategies of self-regulation utilized by EFL students, as well as the strategies they employ to actively engage in the classroom. It seeks to contribute to students' understanding of the meaning and significance of self-regulation, particularly within an academic context, and provide valuable insights into effective self-regulation and classroom engagement practices. The findings of this study have the potential to benefit both teachers and students, serving as a valuable resource for educators seeking to enhance student engagement and promote effective self-regulatory skills in the classroom. By bridging the gap between theory and practice, this work is intended to be of practical relevance to teachers and students as the primary recipients. Teachers seeking strategies to maintain student engagement will find valuable insights, while students will gain a deeper understanding of self-regulation and its impact on their academic performance. Ultimately, this study aims to contribute to the educational landscape by fostering a supportive and engaging learning environment for EFL students.

9. Referencing Style for the Dissertation

Because of its extensive importance to the field of social sciences and humanities, the American Psychological Association (APA) was chosen as the referencing style for this academic work. Furthermore, the 7th edition of the APA style was chosen because it is a particularly recent version.

10. Structure of the Dissertation

The subsequent outline illustrates the structural organization of the dissertation:

The dissertation begins with an introductory section that offers a preliminary overview of the entire work, including its objectives. Furthermore, it addresses the research questions that will be explored and provides a concise description of the rationale and details of the study. The section also outlines the research methodology, including information on the population and sampling technique. Additionally, it highlights the significance of the study and specifies the referencing style to be used throughout the dissertation.

The first two chapters represent the theoretical part of the whole work; however, the third chapter entails the fieldwork of the current study.

Chapter One tackles the first variable (i.e. the students' Engagement).

The purpose of the first chapter is to provide insights into student engagement (SE), including its interpretation and the significance of integrating various papers on the subject. It begins by examining the various definitions of SE proposed by scholars and prior researchers, followed by an examination of teachers' and students' perspectives on this critical subject. Following that, the chapter goes into the dimensions of SE and investigates its relationship with

Problem-Based Learning. The chapter also looks into the effects of emotional state and critical thinking on SE. Finally, the chapter discusses the methods used to assess student engagement.

Chapter two provides a thorough discussion of the idea of self-regulation (SR), including scholarly definitions and theoretical roots in Bandura's (1986) Social Cognitive Theory. Furthermore, this chapter not only gives insights into the social cognitive phases involved in the development of self-regulation skills, but it also explores the characteristics of SR. This chapter also helps to the understanding of Self-Regulated Learning (SRL) by clarifying the distinctions between metacognition, monitoring, and self-regulation. Finally, the chapter discusses essential data gathering instruments used in SR-related studies.

Chapter Three is devoted to the researcher's field work, which includes data collected using the two alternative data collection technologies. The data from the questionnaire will be described, examined, and interpreted in order to determine the frequency and percentage of each item representing distinct self-regulation and engagement strategies. Data from interviews, on the other hand, will be recorded, transcribed, and thematically analyzed.

Chapter One

Chapter One: Students' Engagement

1. Introduction

2. Definition of Student Engagement

3. Dimensions of Student Engagement

3.1. Emotional Engagement

3.2. Behavioral engagement

3.3. Cognitive Engagement

4. Teachers' Perspectives of Student Engagement

5. Students' perceptions of classroom engagement

6. Students' Engagement in Problem-Based Learning

7. The Effect of Emotional State on Students' Engagement

8. Students' Critical Thinking and Students' Engagement

9. Students' Motivation and Classroom Engagement

10. Methods used for Measuring Student Engagement

10.1. Student Self-report

10.2. Experience sampling (ESM)

10.3. Interviews

10.4. Observations

10.5. Case Study

11. Conclusion

1. Introduction

The purpose of this chapter is to give insights on student engagement (SE) in terms of how it was interpreted and how crucial it is that it brings together a series of papers. In this endeavor, the chapter, at first, highlights the different definitions of scholars and previous researchers of student engagement, followed by teachers' and students' perspectives on this significant notion (i.e. SE), then moving to its dimensions. Furthermore, the chapter investigates the aspects of SE via the perspective of Problem-Based Learning. The effect of emotional state and critical thinking on SE are also addressed in this chapter. Finally, the chapter delineates some methods that are used in measuring Student Engagement.

2. Definitions of Student Engagement

Engagement has become one of the major concepts that psychologists are interested in. This concept and its definition and position within academic contexts brings together a series of papers in which researchers tried to provide clear explanations and definitions to it in relation to other relevant academic concepts. According to Newmann (1992), engagement as opposed to apathy or lack of interest, denotes an active involvement, commitment, and focused attention. Newmann (1992) added that humans may experience varying levels of engagement as they talk, listen, observe, read, reflect, and use our bodies at work, play, and social interaction. In other words, human engagement has complex causes and consequences that are best understood in the context of specific activities and social contexts. Hence, researchers begin by defining the concept in terms of student participation in academic work. Newmann (1992) asserted its significance in developing a reform agenda for education.

Based on Finn's participation-identification model (1989), Newmann (1992) defined engagement as a construct used to describe an inner quality of concentration and effort to learn.

However, as Reschly and Christenson (2022) explained, the focus of engagement research has shifted from examining characteristics that prevent students from dropping out to investigating aspects that increase learning success and completion. In fact, the notion of dropout is defined as an ongoing process of engagement, academic achievement, identification; whereas, the notion of completion is defined as an ongoing process of exclusion, low academic achievement, and emotional detachment (Reschly & Christenson, 2022). Rather than being actual occurrences, dropout and completion are long-term processes of involvement or disengagement with education (Reschly & Christenson, 2022). Hence, engagement is what is required from students to successfully complete their academic journeys. According to Reschly and Christenson (2022), it is acknowledged that engagement consists of active participation and positive attitudes, including feelings of school pride and gratitude towards it. Likewise, Reschly and Christenson (2022) pointed out that education has never solely revolved around academics, but rather, it has always been perceived as the connection or bond that unites students with their communities, schools, homes, and other significant environments, ultimately guiding them towards their desired goals.

In other words, academic engagement is about more than just studying; it is also about linking students to their surroundings, educational institutions, families, and other essential settings. Additionally, aiding students in maintaining regular participation in educational tasks and activities is one of the teachers' targets.

Due to the impressive growth in research on the concept of engagement over the last two decades, as well as researchers' and psychologists' intense focus on and interest in engagement, various researchers conceptualize and operationalize the engagement construct in a variety of ways based on relevant theoretical perspectives (Fredricks et al., 2004). Consequently, engagement was also viewed as a mediator between context, individual, and

outcomes (Appleton et al., 2006). In the same sense, student engagement is the product of interactions between the learning context and the self or the fulfillment of developmental needs for competence, autonomy, and connectedness (Skinner et al., 2008).

Finn (1989) proposed the participation-identification framework, which defines engagement as students' basic learning behaviors and affective responses, including a sense of belonging and valuing. Student engagement is further described as active participation in academic and co-curricular activities, along with dedication to educational goals and learning. Additionally, Christenson et al. (2012) emphasize that engaged students find learning meaningful and are invested in their education and future. However, Azevedo (2015) notes that despite the abundance of research on engagement, conducting a search for articles on the topic yields over 32,000 results, indicating the lack of a consistent and unified definition of engagement within the vast body of literature.

3. Dimensions of Student Engagement

Engagement is described as encompassing aspects of students' emotion, behavior and cognition. Additionally, it is a broad term that includes behavioral (e.g., participation), emotional (e.g., enjoyment), and cognitive (e.g., effort) components since it is a meta-construct that includes observable behaviors, internal cognitions, and emotions (Wang et al., 2017). According to Fredricks, Blumenfeld, and Paris (2004), these categories are non-hierarchical and they represent important dimensions of engagement and that more multidimensional research must be conducted. As per Appleton et al. (2008), most studies consider engagement to be a combination of two or three components, though some studies include a fourth component when describing student engagement. Regardless of the number of components that make up the construct of engagement, almost every study on engagement includes at least two fundamental components, such as Fredricks et al. (2004).

The first type of engagement is emotional engagement, which reflects students' sense of belonging at school and the second type is behavioral which includes student participation at school (e.g. Anderson et al., 2004; Fredricks et al., 2004). As a result, cognitive engagement is the third frequently mentioned additional component (Appleton et al., 2008; Fredricks et al., 2004). Moreover, it has been acknowledged that “The three dimensions of student engagement are not isolated, but rather, they are dynamic and interrelated with each other” (Fredricks et al., 2004, p.27).

3.1. Emotional Engagement

While behavioral engagement appears to be important in determining actual performance, emotion is more likely to function as a stimulant for the type of behavioral and cognitive engagement that promotes high-quality learning outcomes (Skinner et al., 2008) as cited in (Christenson et al., 2012). When students have positive attitudes and reactions toward school, teachers, learning, and peers, they are said to be emotionally engaged. “Emotional engagement refers to students' positive or negative responses and attitude to staff or other students and that may indicate their feelings of belonging to school and possibly a factor that may affect their motivation to learn” (Christenson et al., 2012, p 10).

Following Fredricks et al. (2004), emotional engagement, often known as affective engagement, is concerned with students' feelings and attachment toward their school, learning, teachers and peers, students' positive and negative reactions or feelings, and students' ties to their school, learning, teachers and peers. Hence, these previously mentioned EG's concern, including school belonging and acceptance by both teachers and peers, represent factors that might influence students' willingness to perform schoolwork and to attend school (Fredricks et al., 2004).

The expanding importance of emotions in the academic field has captured the attention and interest of researchers, notably in the field of educational psychology. As a result, there has been significant progress in understanding the critical role and significance of this fundamental concept.

3.2. Behavioral engagement

In accordance with Fredricks et al. (2004), behavioral engagement entails students' participation and involvement in school and extracurricular activities, as well as their positive attitudes during activity resolution. A significant number of studies concentrated almost on behavioral engagement, which is commonly used to assess student involvement in school (Zyngier, 2008). It is one of the most extensively researched engagement dimensions which is often understood and classified into two common classifications: Positive Students Behaviors and Learning Behaviors (Finn & Zimmer, 2012). Many researchers have repeatedly confirmed the importance of behavioral engagement for achievement outcomes (e.g., Finn & Zimmer, 2012). Many studies have confirmed the significance of behavioral engagement in academic achievement outcomes and asserted its direct and strong association with academic performance such as Archambault et al. (2009) and Hughes et al. (2008)'s works. Hence, experts readily recognize engagement behaviors as critical to learning.

Furthermore, behavioral engagement can be represented in a variety of ways at various stages of development. Following rules and directions, for instance, is an important indicator of behavioral engagement. Ng et al. (2019) claimed that early childhood and lower primary school engagement has been used to predict school readiness and future school success in young children in terms of behavioral engagement. According to Ng et al. (2019), nothing is more important than just following rules during middle school or early adolescence. Besides, Ng et al. (2019) clarified that behavioral engagement can vary depending on the nature of the

task and the characteristics of the learning environment. Therefore, Ng et al. (2019) claim that serving attendance as an example of an important form of behavioral engagement for after-school activities, the primary concern remains the completion of homework, expenditure of effort, and task completion on time, which are, in return, the more relevant indicators of behavioral engagement. Ng et al. (2019) also mentioned that though students' behavioral engagement is viewed solely as compliance with classroom rules and behavioral expectations, there may be a disconnect between what energizing, directed, and sustained action they are capable of taking in relation to learning tasks. This study showed teachers have various strategies to engage an individual-student and a whole-class, as was previously claimed by Fredricks et al. (2004).

In conclusion, the multifaceted nature of behavioral engagement emphasized the importance of following rules and directions as indicators of engagement across different developmental stages. Additionally, the significance of considering contextual factors and task characteristics in understanding behavioral engagement is significantly important while acknowledging the potential gap between compliance with rules and students' actual engagement in learning tasks.

3.3.Cognitive Engagement

Since behavioral engagement focuses on a child's attendance and participation in an activity, cognitive engagement, then, focuses on the child's knowledge and beliefs about the activity and self (Appleton et al., 2008).

Fredricks et al. (2004) and Harris (2011) claimed that Students' commitment and readiness to make an effort in learning is referred to as cognitive engagement. Moreover, goal-setting, self-regulation, and the intrinsic desire to engage in intellectual challenges and mastery of complicated tasks and abilities are all part of cognitive engagement (Fredricks et al., 2004;

Harris, 2011). Moreover, studies show that students who are cognitively engaged or self-regulated would use meta-cognitive strategies to plan or evaluate their performance in learning (Zimmerman, 1990). Thus, cognitive engagement is thought to occur when students invest personally in learning in a focused, strategic, and self-regulating manner.

Following what was said in the previous paragraph, cognitive engagement has profound implications for educational practices and student results. Educators can promote a focused and strategic approach to learning by encouraging goal-setting, self-regulation, and metacognitive methods. Thus, understanding and promoting cognitive engagement can help improve students' motivation, achievement, and overall academic success in a variety of educational contexts.

This is, however, only one multidimensional classification of engagement (Harris, 2008). Based on Anderson et al. (2004)'s research, there are four types of engagement, named as behavioral, academic, cognitive, and psychological engagement. While their categories are similar to those described by Fredricks et al. (2004), the only difference between these two classifications is that academic engagement was added to the other three dimensions, namely behavioral, cognitive, and emotional engagement. As per Anderson et al. (2004) definition, academic engagement refers primarily to the specific time spent doing learning activities as compared to general behavioral engagement in which students may participate in non - educational interests.

Differences between the constructs are largely a matter of focus. The emotional and cognitive dimensions; however, are less examined in research, possibly because they are more abstract and difficult to observe and measure. Most research has focused on behavioral engagement as its entities can be fairly operationalized and measured (Fredricks et al., 2004).

4. Teachers' Perspectives of Student Engagement

It is highly effective to look for teachers' perceptions of student engagement in order to adequately know what type of student engagement they are seeking for and how and what strategies they are using. Harris (2011)'s study, as an example, found six categories relating to teacher understandings of student engagement, and three relating to how teachers conceptualized facilitating engagement. In fact, the first six categories are referred to as 'The What Aspect'; whereas, the other three categories are referred to as 'The How Aspect'. Harris (2011) pointed out that *Behaving* is the first 'What Aspect' category, in which teachers defined engagement as student participation in classroom activities and adherence to school rules, which is similar to the definitions of behavioral engagement. Students who were engaged in this category were those who were listening and answering questions. In other words, 'Proper Behavior' was highlighted as crucial (Harris, 2011). As a result, participating in the activity while adhering to basic rules in the classroom was characterized as student engagement.

The following 'What Aspect' category is *Enjoying*, which is based on oversimplified views of the affective components of engagement (Harris, 2011). Within this category, as Harris (2011) clarified, student engagement was viewed as students' interest in and enjoyment of their school participation. Therefore, engagement is defined as being interested in what is going on in the classroom or wherever it is being taught (Harris, 2011). Besides that, teaching and learning were viewed as teacher-centered in both categories, with behavioral outcomes being highly valued (Harris, 2011). Within this category, students were considered engaged and learning if they participated and seemed to enjoy what they were doing, regardless of the level of academic challenge provided by the task, aligning this construct with school engagement rather than learning.

Being motivated is the third 'What Aspect' category, in which students began to include more complex understandings of psychological engagement (Harris, 2011). Hence, teachers defined student engagement as students' motivation to participate and belief in their ability to succeed. Harris (2011) mentioned that students were perceived to be looking for rewards and validation, relying on extrinsic rather than intrinsic motivation. That is to say, the acts of doing, working, and participating remained important. Therefore, extrinsic rewards were mentioned as particularly effective motivators.

The fourth 'What Aspect' category is *Thinking*, during which the student began to integrate psychological and cognitive aspects of engagement (Harris, 2011). Teachers in this category stated that their students would participate in teacher-created activities as long as the work was intellectually appropriate, implying that students can be involved by thinking as well as doing (Harris, 2011).

According to Vibert and Shields (2003), students were described as having knowledge and skills that enable them to learn, in contrast to previous categories where a deficit mentality was generally adopted. Moreover, Harris (2011) argued that student engagement was defined in the fifth 'What Aspect' category (i.e. *Seeing Purpose*), as students' learning to achieve their life goals on purpose. Further, Harris (2011) claimed that teachers argue that for students to fully engage, they must understand why they are learning what they are learning.

The final category is *Owning Learning*, which expands on the previous category by arguing that students must control their learning, describing student engagement as owning and valuing learning (Harris, 2011). Students who were actively participating were portrayed as intrinsically motivated. According to some teachers as Harris (2011) argued, engagement is defined as "Owning the stuff that they do and valuing it and, you know, doing it because they value it and own it" (Harris, 2011, p.8).

Additionally, *Delivering*, *Modifying*, and *Collaborating*, on the other hand, are the three aspect categories that teachers use to increase student engagement. In fact, teachers' perceptions and understandings of student engagement or disengagement are important as they influence the decisions they make about teaching and learning strategies and processes. However, their perceptions, often, indicate they blame the student for the disengagement as opposed to examining their shared responsibility for students' level of engagement (Harris, 2011).

5. Students' perceptions of classroom engagement

Students' engagement in school is a topic of central importance since it is positively related to student achievement (Fredricks et al., 2004). It is, again, effective to know how students grasp the meaning of classroom and academic engagement. Thus, adequate teaching and learning strategies and sufficient correction, in terms of these two notions definitions (i.e. academic and classroom engagement), can be provided.

One of the research papers that looked at the links between students' perceptions of classroom interactions and their emotional and behavioral engagement was the Fredricks et al. (2004). Actually, Fredricks et al. (2004) used multilevel analyses to investigate these associations. Hence, a web-based survey was used to collect data, and descriptive statistics, confirmatory factor analysis, and multilevel structural equation modeling were used in the statistical analyses. Consequently, the findings revealed that students who perceived high-quality classroom interactions were more engaged in school, with emotional support from teachers having the strongest relationship with engagement at both levels (Fredricks et al., 2004). Furthermore, primary school students were more emotionally engaged than lower secondary school students, and female students engaged in more behavioral activities than male

students (Fredricks et al., 2004). Moreover, the underpinning theory for the current study is based on the ‘Teaching Through Interactions’ framework, which “sees classroom interactions as important for successful student development and uses measures of teachers' emotional support, classroom organization, and instructional support” (Hamre et al. 2013, as cited in Fredricks et al., 2004).

Pintrich (2003) stated that students attain even higher levels of academic performance when they are not simply on task and interested, but also strive for knowledge, create personal learning goals, and regulate their effort to reach these goals (Pintrich, 2003). In this instance, students can be identified as autonomously engaged. In line with Pintrich (2003)’s study, further markers of academic engagement include situations in which students experience strong emotional involvement in their learning, indicating a real passion for the subject. Moreover, Pintrich (2003) mentioned another sign of student engagement, claiming that learners are establishing meaningful connections within their school community, demonstrating that they have a sense of belonging. Additionally, another indicator of academic engagement includes the state in which students assume leadership responsibilities that contribute to improving the overall learning environment. Within this tiered model of academic engagement, students’ participation in their education encompasses attitudinal and emotional aspects as well as behavioral elements (Pintrich, 2003).

To recapitulate, students who are behaviorally and cognitively engaged have significantly higher grades, academic test scores, and performance on standards assessments. Alternatively, students who are behaviorally, cognitively, and autonomously engaged are more likely to complete school and transition into successful and satisfying academic lives.

6. Students' Engagement in Problem-Based Learning

Problem Based-Learning (PBL) is a philosophy and methodological approach to curriculum development that has been used since 1995. PBL was conceived 30 years ago as an alternative to traditional methods of medical education (MacKinnon, 1999). It has its roots in medical education, and much research on the subject has been published in medical journals (MacKinnon, 1999). MacKinnon (1999) also pointed out that PBL involves confronting students with problems derived from practice as opposed to the traditional didactic systems' approach to nurse education. This latter decision was made to better prepare the new graduate for the rapid advances and changes in health-care services that the previous method of education was deemed incapable of meeting. In fact, PBL strategy was developed by the Faculty of Health Sciences of McMaster University in the late 1960s.

Further, this teaching technique has been used as an educational strategy in a variety of disciplines in recent years. Besides, Boud and Feletti (1997) mentioned that PBL emphasizes knowledge acquisition within a contextual framework through the use of the hypothetico-deductive technique which is a cyclic pattern of reasoning and observation used to generate and test proposed explanations (i.e. hypotheses and/or theories) for perplexing natural observations. In addition to that, Yew and Goh (2016) defined PBL as a pedagogical strategy that allows students to learn while actively interacting with important challenges. Students are provided opportunities to collaborate in problem solving, construct mental models for learning, and form self-directed learning strategies (Yew & Goh, 2016).

In a nutshell, students are experiencing perplexity, confusion, or doubt as a result of specific situations that constitute the cognitive aspect of learner engagement. Students respond to these problems by drawing on existing knowledge, accessing resources, participating in peer learning, and reflecting in writing (Dewey, 1991, as cited in Yew & Goh, 2016). Therefore,

this technique not only assists students in comprehending things, but it also promotes self-awareness, contextual understanding, and successful learning practices (Dewey, 1991, as cited in Yew & Goh, 2016). Hence, PBL aims at generating useful knowledge that aids in offering reliable predictions about future events. Moreover, it creates an environment in which students can become more active and engaged.

Furthermore, according to Lohman and Finkelstein (2000), learning groups or cooperative base groups are made up of five to eight students to work through the problem together. Whereas, Biley and Smith (1999) and Baker (2000) previously stated in their papers that using a trained facilitator to guide the learners without teaching them in a traditional manner is sorely needed in PBL classes. Therefore, the facilitator's role in a PBL environment is important and critical to the success of the learning process (Biley & Smith, 1999). Similarly, Dahlgren (2000, as cited in Ahlfeldt et al., 2005) asserted that having someone to whom groups may turn for direction resulted in a richer, more thorough, and integrated degree of learning. Furthermore, PBL emphasizes conceptual comprehension, critical thinking, and teamwork from a conceptual approach.

Problem-Based Learning (PBL) is an instructional strategy in which students are exposed to real-world situations as part of their learning process. PBL engages students in actively seeking solutions and applying their knowledge to solve actual problems rather than relying simply on traditional lecture-based learning. PBL fosters critical thinking, problem-solving abilities, and collaborative learning by immersing students in real situations. It promotes a learner-centered environment in which students take control of their education and gain a deeper knowledge of the material.

Williams (1999) defines problem-based learning as deviating from traditional educational techniques as it presents students with real-world challenges related to the subject

content. These issue scenarios are purposefully created to be properly structured in order to provide students with a useful atmosphere for inquiry and learning (MacKinnon, 1999).

PBL took a crucial position as a teaching technique which helped significantly both teachers and students, respectively, through enhancing second language teaching and fostering second language learning. Also, it has an undeniable role in improving student's critical thinking and other language learning skills. In other words, Students learn more effectively when they are actively involved in a realistic context where their knowledge can be applied. Therefore, PBL should be taken into consideration since it plays a convincing role in strengthening students' involvement in classroom activities.

7. The Effect of Emotional State on Students' Engagement

“The classroom is a primary micro-context in which students and teachers interact” (Reyes et al., 2012, p.1). Reyes et al. (2012) further stated that the quality of social and emotional interactions in the classroom between and among students and teachers, including teacher and peer support and student autonomy, determines the emotional climate of the classroom.

Reyes et al. (2012) investigated the relationship between the emotional climate of the classroom, student engagement, and academic achievement. Thus, Reyes et al. (2012) emphasized the importance of fostering a positive emotional climate in the classroom, which includes supportive teacher-student interactions, a sense of belonging, and a respectful and inclusive learning environment. The researchers discovered that a pleasant emotional climate predicts better levels of student engagement, which leads to higher academic accomplishment (Reyes et al., 2012). Hence, Reyes et al. (2012) emphasized the importance of emotions in the

classroom and the importance of creating a healthy emotional climate to improve student engagement and academic success.

To recapitulate, the quality of social and emotional connections between students and teachers influences the emotional environment of a classroom. It emphasizes the significance of factors like teacher and peer support, as well as student autonomy, in forming the overall emotional climate in the classroom. The emotional environment is influenced by the quality of these interactions, which are characterized by positive relationships, support, and a sense of autonomy. This has impacts on both the students' emotional well-being and participation in the learning process.

Furthermore, Grining et al. (2010) focused on understanding and enhancing the emotional climate in the classroom as well as behavior management in Head Start settings. The researchers investigate the impact of psychosocial stressors on the classroom environment and children's behavior in head start teachers. The findings emphasized the necessity of managing teachers' concerns and offering assistance in early childhood education settings to maintain healthy classroom climates and effective behavior control strategies (Grining et al., 2010).

In line with these claims and perspectives of the previously mentioned researchers, it is worth noting that student emotions and the general CEC represent crucial factors. Therefore, CEC impacts student engagement. That is to say, when CEC is positively high, students are more likely to be engaged in classroom activities and group works and discussions. Though, the opposite is evident. In other words, the correlation between CEC and student engagement is a positive correlation. In summary, educational psychologists are making great strides in understanding the central role of emotions for students' academic lives.

Emotional regulation was also examined by Nett et al. (2011). In fact, Nett et al. (2011) focused on the single emotion of boredom. They examined how adolescents cope with boredom

during mathematics using both trait and state coping styles. What is particularly unique about their approach is the consideration of the interplay between the regulation of boredom and the experience of boredom in the classroom. Based on their findings, Nett et al. (2011) provided a number of suggestions about how students can effectively regulate boredom to enhance academic engagement. Hence, to reduce boredom, Nett et al. (2011) suggested that students use proactive strategies such as creating objectives, seeking demanding assignments, and having a positive attitude. They also suggested adaptation measures such as focusing on task-relevant ideas, seeking social engagement, and practicing self-regulation skills when bored. Thus, students can better cope with boredom and foster greater intellectual engagement in the classroom by employing these strategies.

Furthermore, MacCann et al. (2020) carried out a meta-analysis study to investigate the link between emotional intelligence and academic success. Their study found a substantial positive association between emotional intelligence and academic achievement across multiple school levels and areas. According to the findings, students with stronger emotional intelligence perform better academically. This study emphasized the significance of emotional intelligence in predicting academic success and the potential benefits of including emotional intelligence training in educational settings. In other words, Higher levels of emotional intelligence are related with improved academic performance (MacCann et al., 2020).

The previously mentioned studies aim to improve knowledge and comprehension of existing research on emotions and emotion regulation. As a result, they raise knowledge about the current state of the discipline and reveal the wide range of possibilities for conceptualizing and analyzing emotions.

8. Students' Critical Thinking and Students' Engagement

Siegel (1980) stated that: “critical thinking is best thought of as an embodiment of the ideal of rationality” (p.8). Siegel (1980) added: “A critical thinker is one who recognizes the importance, and convicting force, of reasons” (p.8). Based on Siegel (1980)’s definition, a critical thinker is someone who can analyze arguments and create judgements based on rational considerations. Likewise, this thinker understands and follows the criteria governing the evaluation of the strength and validity of these rationales (Siegel, 1980). Subsequently, when assessing claims, evaluating procedures, or making decisions, the critical thinker seeks reasons to base his or her assessment, evaluation, or judgment (Siegel, 1980). Furthermore, seeking reasons necessitates acknowledging and adhering to the principles that govern such activity. As a result, critical thinking falls under the category of principled thinking (Siegel, 1980).

In a nutshell, individuals are expected to gain the ability to examine claims and make educated judgements based on reasoning. Critical thinkers can participate in thorough and reasoned analysis, leading to more effective decision-making and problem-solving, by adhering to principles that guide the evaluation of reasoning. Siegel (1980)'s research emphasized the importance of developing critical thinking abilities in educational environments in order to promote intellectual growth and reason.

On the other hand, Caratozzolo et al. (2019) stated that critical thinking is the active, persistent and careful analysis of any belief or supposed form of knowledge in light of the fundamentals that support it and the conclusions from which it arises. Numerous reports solely consider the cognitive tools related to information and communication technologies underestimating the investigations on metacognitive tools for engineering development.

The development of critical thinking involves both dispositions and abilities; however, the approach implemented in Caratozzolo et al. (2019)’s research focused on the improvement

of some dispositions of critical thinking, such as self-awareness; open mindedness; attentiveness towards different situations, and Broad perspective view. In their 2019 study, dialogue Seminars and Online Discussion Boards, were designed to favor teamwork involving personal efforts for the benefit of interaction with others, and responsible leadership so that the interaction was positive and effective.

Caratozzolo et al. (2019)'s research encourages the development of a common language and enhances the critical and reflective thinking of future engineers who want to advance in their personal, social, and professional lives. The researcher argues that language plays a crucial role in facilitating both communication and cognitive processes. Therefore, it is essential to adopt a targeted methodology that guides students in developing their abilities in spoken, written, and symbolic language, which are primarily used for practical and social purposes (Caratozzolo et al., 2019). This approach not only fosters conscious learning but also promotes reflective thinking (Caratozzolo et al.2019). That is, this study looked at specific critical thinking dispositions to achieve intellectual engagement. Further, its findings showed that Engineering students can highly develop their cognitive potentials when they practice social skills.

Another important point is that Caratozzolo et al. (2019) purposefully included The Dialogue Seminar and The Online Discussion Board. The goal of incorporating these two methods into the classroom was to encourage students to share their experiences and shift the dominant teaching mode to a dialogic approach. The Dialogue Seminar involves small groups of students and a mentor, where each student reads their essay and the group shares their experiences. The Online Discussion Board provides a safe space for students to freely discuss ideas. These approaches, namely The Dialogue Seminar and The Online Discussion Board, aim to foster intellectual engagement and promote students' active involvement in their learning

process. Furthermore, these two implementations were designed with a group of students to develop critical thinking dispositions through dialogue seminars and online discussion boards, as well as some metacognitive instruction strategies.

The instructor's presentation of a real-life conflict as a case study, followed by group discussions to foster consensus and exchange diverse perspectives, significantly contributes to the development of students' critical thinking skills (Caratozzolo et al., 2019). Consequently, it promotes their engagement in classroom discussions. Ultimately, Caratozzolo et al. (2019) mentioned that adding cross-curricular discussion-based activities to build specific critical thinking dispositions increases intellectual engagement among engineering students

9. Students' Motivation and Classroom Engagement

Students' motivation and engagement play vital roles in their academic success and overall learning experience. Therefore, understanding students' motivation and engagement is crucial for educators in creating effective learning environments and fostering students' active participation in the learning process. For that particular reason, several studies have been conducted. Christenson et al. (2012) was among those studies.

Christenson et al. (2012) stated: “motivation is equated with students' psychological need satisfaction” (p. 172). Thus, being aware of and satisfying students' psychological needs is critical for creating a positive motivational climate and encouraging effective involvement in the classroom. Christenson et al. (2012) further differentiated between motivated and unmotivated learners. That is, students who feel a sense of autonomy, competence, and relatedness while engaged in learning demonstrate high-quality motivation. Whereas, those who experience neglect or frustration of these needs during instruction exhibit low-quality motivation (Christenson et al., 2012).

Christenson et al. (2012) provided a critical distinction between motivation and students' engagement. Indeed, the differentiation between motivation and engagement lies in their nature. Motivation refers to the internal and unobservable psychological, neural, and biological processes that precede and influence behavior, while engagement refers to the observable behaviors that are publicly displayed (Christenson et al., 2012).

In line with Christenson et al. (2012)'s perspectives, the assertion that shifts in student engagement lead to shifts in motivation rests on the premise that students possess the capability to fulfill their own psychological needs. Learners have personal psychological needs. These needs encompass diverse aspects such as goals, interests, and beliefs (Christenson et al., 2012). Notably, these motivational factors (i.e. psychological needs) can manifest across a range of contexts, as an example, a student's continuous use of a mastery goal orientation in a variety of academic situations (Christenson et al., 2012). This implies that students can take proactive actions to meet their psychological requirements and develop their motivational mindset, emphasizing the dynamic interplay between engagement and motivation in the learning process (Christenson et al., 2012).

Nevertheless, Christenson et al. (2012) asserted that the teacher's responsibility is to support existing student motivation and engagement in a way that allows for high, rather than low, quality motivation and engagement. Christenson et al. (2012) claimed that "It is only partially valid to think of the relations among social context, motivation, engagement, and student outcomes in a linear fashion (i.e., social context → motivation → engagement → outcomes) because one also needs to think about these relations in a reciprocal way" (p. 152).

To recapitulate, the links between social environment, motivation, engagement, and student outcomes should not be understood as a straight line, with one aspect leading to the next. Instead, the significance of viewing these interactions as reciprocal has been emphasized

by Christenson et al. (2012). In other words, the social context can influence motivation, which in turn influences engagement, and motivation and engagement can both have reciprocal effects on one another. Similarly, while engagement and motivation can influence student results, same outcomes can also influence motivation and engagement. Recognizing the bidirectional and interrelated nature of social context, motivation, engagement, and student results is required for understanding the dynamics of these interactions.

On the other hand, Christenson et al. (2012) shed light on the Self-Determination Theory (SDT) and defined it as “a theory of motivation that uses traditional empirical methods to build its theory and to inform its classroom applications” (p. 152). As a result, its domain is the examination of people's natural growth inclinations and innate psychological requirements, which serve as the foundation for their self-motivation and personality integration, as well as the settings that promote those good processes (Ryan & Deci, 2000).

In educational contexts, both intrinsic motivation and self-directed types of external motivation contribute to active participation and effective learning (Niemi & Ryan, 2009). Furthermore, Niemi and Ryan (2009) argued that when teachers fulfill students' basic psychological requirements for independence, competence, and social connection, students' ability to govern their own learning independently improves, leading to higher academic success and well-being. As a result, SDT has important implications for classroom instruction as well as broader educational improvements.

To summarize, self-determination theory is important in educational contexts because it emphasizes the relevance of intrinsic motivation and autonomous types of extrinsic motivation in fostering engagement and effective learning.

10.Methods used for Measuring Student Engagement.

In this section, the methods employed for measuring student engagement will be discussed. Accurate assessment of student engagement is crucial for understanding the extent and nature of student involvement in the learning process. Therefore, various measurement approaches and tools will be examined to provide a comprehensive overview of the strategies used to evaluate student engagement in educational research.

10.1. Student Self-report

Appleton et al. (2006) claimed that self-report surveys are the most commonly used method for assessing student engagement.

In accordance with Appleton et al. (2006)'s perspectives, when researchers employ students' self-report instruments, students are given items that indicate a variety of participation. As a result, with this methodology, participants are asked to select the response that best characterizes them. Furthermore, Appleton et al. (2006) affirmed that one of the primary reasons for employing self-report methodologies is the potential to critically collect data on students' subjective perceptions rather than only objective data on behavioral indicators, such as attendance or assignment completion rates, which schools already collect.

In the same vein, Appleton et al. (2006) emphasized the significant usefulness of the self-report methods in assessing emotional and cognitive engagement, which are thoroughly abstract and interpreted from behaviors. Interestingly, Appleton et al. (2006) believe that self-report methods should only be used to assess emotional and cognitive involvement because alternative methods, such as observations and teacher rating scales, are remarkably inferential.

One of the students' self-reports is the Maslach-Burnout Inventory-General Survey (MBI-GS) Schaufeli et al. (2002) used the Maslach-Burnout Inventory-General Survey (MBI-

GS). Indeed, the factorial structure of that measurement was assessed and the relationship between engagement and burnout was examined. The researchers stated that: “all burnout and engagement scales are significantly and negatively related” (p. 86). Besides, Appleton et al. (2006) used another self-report instrument, namely the Student Engagement Instrument (SEI). This latter was used in order to measure two subtypes of student engagement with school: cognitive and psychological engagement.

Another self-report instrument is Engagement vs. Disaffection with Learning (EvsD). Skinner et al. (2008) used this instrument in order to examine the relationship between student engagement, disaffection, and motivation in the classroom.

10.2. Experience sampling (ESM)

This is another technique that has been used to assess student engagement in the classroom (Appleton et al., 2006). In response to ESM signals, students fill out a self-report questionnaire with a series of questions about their location, activities, and cognitive and affective responses (Uekawa et al., 2007). Hence, Uekawa et al. (2007) used the Experience Sampling Method (ESM) in order to measure the levels of student engagement and examined relationships between student engagement and an array of predictors. This methodology enables researchers to obtain precise data on participation in the present rather than retroactively, as with student self-report, reducing issues with recollection failure and the motivation to respond in socially desirable ways. (*Experience Sampling Method*, n.d.). This technique can be used to collect information on variations in engagement across time and situations.

10.3. Interviews

Interviews are other techniques to assess engagement in school. Turner and Meyer (2000) claimed that interviews can be scheduled in advance, involving participants chosen for

their ability to offer trustworthy and accurate information. Alternatively, the interview method can be an integral part of the research process, enabling the research questions, selection of interviewees, and theoretical frameworks to develop as the interviews progress (Turner & Meyer, 2000). Therefore, interviews can vary along a continuum, ranging from structured and planned to more exploratory and emergent approaches (Turner & Meyer, 2000). One benefit of interview methods is they can provide insight into the reasons for variability in levels of engagement to help understand why some students do engage while others begin to withdraw from school.

10.4. Observations

Observational methods at both the individual and classroom level have also been used to measure students' engagement. Appleton et al. (2006) contend that the measurement of cognitive and psychological engagement through observation of student behavior is highly inferential. However, Fredricks et al. (2004) believed that individual observational measures provide limited information on the quality of effort, participation, or thinking.

10.5. Case Study

Case studies are an effective way to gain in-depth knowledge of specific student populations (Appleton et al., 2006). It usually entails gathering and analyzing a variety of data sources, such as interviews and observations, in order to get a full understanding of the subject of research. Thus, in case studies, large amounts of data can be collected from the research sample population. Therefore, this gives a comprehensive picture of students' behaviors within the educational context.

11. Conclusion

At this end, it is worth noting that among these previously mentioned manuscripts, the conceptual clarity in defining and assessing student engagement is determined. As Student Engagement is a fundamental concept that has been rising and gaining researchers' attention and interest, scholars and psychologists are making efforts in their research papers to illustrate a myriad of effective approaches and strategies for the target reasons of enhancing second language learning, second language teaching and developing learning skills.

The second variable, self-regulation (SR), is discussed in the following chapter. IT includes academic definitions as well as the theoretical foundations in Bandura's Social Cognitive Theory (1986). Further, The chapter dives into the different dimensions of SR. Moreover, addresses Self-Regulated Learning (SRL) and distinguishes between metacognition, monitoring, and self-regulation. Additionally, the chapter covers important research tools commonly employed in studies related to self-regulation.

CHAPTER TWO

Chapter Two: Self-Regulation

- 1. Introduction**
- 2. Self-Regulation Definitions**
- 3. Social Cognitive Theory of Self-Regulation**
- 4. Social Cognitive Phases in the Development of Self-Regulatory Skill**
- 5. Phases of Self-Regulation**
- 6. The Dimensions of Self-Regulation**
- 7. Self-Regulated Learning**
- 8. Metacognition, monitoring and self-regulation**
- 9. Instruments that Assess Self-Regulation**
- 10. Conclusion**

1. Introduction

This theoretical chapter provides an overview of the notion of self-regulation (SR), how it was defined by scholars, as well as its theoretical root and how it emerged from Bandura (1986)'s Social Cognitive Theory. Furthermore, this chapter will not only provide insights on social cognitive phases in the development of self-regulatory skill, but also will provide for the dimensions of SR. In fact, what is more is that this chapter will contribute to the understanding of Self-Regulated Learning (SRL). Likewise, it will shed light on the difference between metacognition, monitoring and self-regulation. Finally, the reader will be provided by some main instruments that were used for collecting data when it comes to SR related studies.

2. Definitions of Self-Regulation

As psychology has become an increasingly interesting subject over the past few decades, self-regulation has been attracting a large amount of attention; over the past few decades, several papers have attempted to provide clear definitions and explanations regarding this subject. As an introduction to this crucial concept, it is worth highlighting how the concept of self-regulation has been defined by research scholars over the years.

Albert Bandura (1977) as cited in (Zimmerman, 1989) found that beliefs about one's own self-efficacy seemed to determine how capable one believed one was at self-regulating one's thoughts and behavior while studying children. This finding led to the development of the concept of self-regulation, which was later incorporated into social cognition theory (Zimmerman, 1989). According to Bandura's triadic definition of Self-regulation (1986) as cited in (Zimmerman, 1989), SR was seen as an interaction of personal, behavioral, and environmental triadic processes; claiming that the act of self-management refers not only to a behavioral skill that helps the

individual to manage the environment in a timely manner, but also to the cognitive and affective abilities that allow the individual to enact such skills in relevant contexts (refer to Figure 1).

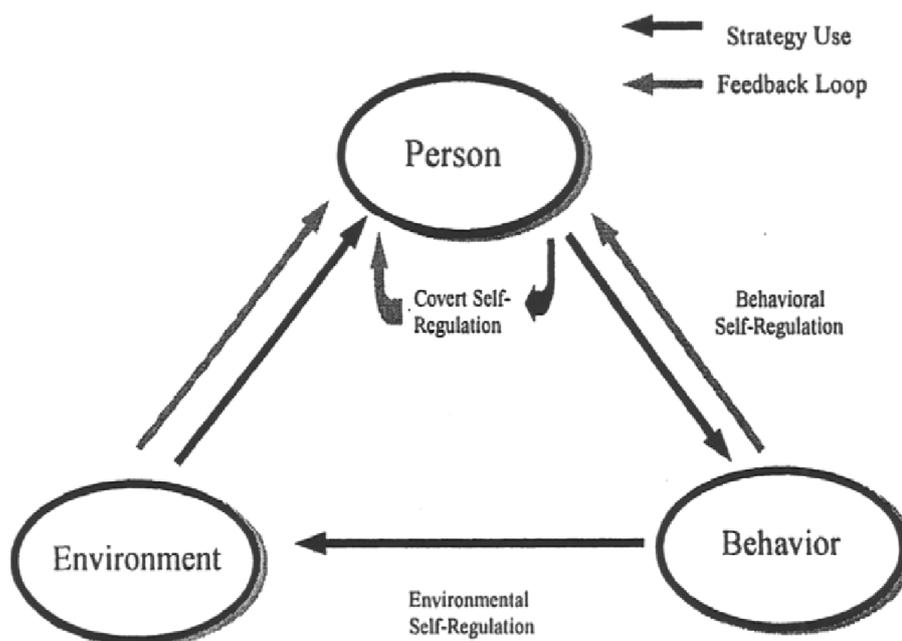
Academic self-regulation is the control of one's own thoughts, feelings, and behavior with the aim of achieving particular educational objectives, such as reading comprehension, test preparation, or paper writing (Zimmerman et al., 1996). Thus, a student can be academically self-regulated when he has the capacity to take control over his ideas, emotions and actions during his journey of reaching the targets (i.e. his academic goals). As a result, Zimmerman (1995) claimed that the ability of an individual to complete previously stated goals despite competing pressures and diversions is referred to as self-regulation. Therefore, SR is usually defined as a broad range of post intentional processes, exercising control over the environment, parsimonious information processing, and control over emotions and attention (Zimmerman, 1995). Moreover, Zimmerman (2000) also stated that SR refers to self-generated thoughts, feelings, and actions that are planned and cyclically adapted to the attainment of personal goals.

Self-regulation is also viewed as action orientation because it allows people to down-regulate interfering unpleasant emotions when they are in conflict with their chosen goals (cf. Baumann & Kuhl, 2002, as cited in Luszczynska et al., 2004). In other words, SR represents a state during which an individual can tolerate and manage the negative emotions they face while achieving their targets. Further, SR is a stable personal disposition, a characteristic of an individual that enables control over actions (Luszczynska et al. 2004). Thus, a self-regulated person is someone who has the ability to take responsibility in controlling his behaviors reasonably and properly. In addition to that, SR is defined as the conscious individual control of motivation, thoughts, emotional states, and behavioral patterns in order to achieve success in educational areas (Schunk & Zimmerman, 2012).

Self-regulation is a cyclical process since it requires using feedback from previous performance to adjust current efforts (Zimmerman, 2000). This is significant because personal, contextual, and behavioral elements change during the learning and performance process. Zimmerman (2000) stated that three feedback loops are employed in self-regulation to monitor and observe these changes.

Figure 1:

Triadic forms of self-regulation.



Note. From Zimmerman (1989).

3. Social Cognitive Theory of Self-Regulation

Bandura (1986) as cited in (Zimmerman, 1989) proposed the social cognitive theory that explains psychosocial functioning in terms of triadic reciprocal causation. According to Bandura's Social Cognitive Theory (1986) as cited in (Zimmerman, 1989), human functioning is viewed as a sequence of reciprocal interactions involving behavioral, environmental, and personal variables such as cognitions. In this paradigm of reciprocal determinism where cognitive and other personal traits, behavior, and environmental events all interact as bidirectionally influencing determinants. Hence, each of the essential interactant in the triadic causal structure-cognitive, behavioral, and environmental functions is viewed as a critical component in the dynamic environment Zimmerman (1989).

In line with this theory, Bandura and Cervone (1986) stated that efficacy beliefs, personal goal setting, and analytic thinking quality are examples of cognitive determinants. Further, Bandura and Cervone (1986) pointed out that the behavioral determinant consists of decisions made by managers and put into action. It suggests that the choices and actions taken by managers play a significant role in shaping behavior. Whereas the environmental determinant, according to Bandura (1986) as cited in (Zimmerman, 1989), shows the external conditions and context in which individuals function, as well as how these elements influence their behavior and decision-making processes. Hence, Bandura (1986) as cited in (Zimmerman, 1989) emphasized the significance of investigating and analyzing ongoing processes in order to gain understanding of how the causal structure of interactions operates and evolves over time.

4. Social Cognitive Phases in the Development of Self-Regulatory Skill

Zimmerman (1994) as cited in Zimmerman (1996) proposed social cognitive phases that contribute to the development of self-regulation skills in children by stating that children master academic skills through four stages. The process involves the acquisition of knowledge about learning strategies through observation of exemplary models, imitation of those models' strategic performance, self-controlled practice of these models' strategies, and adaptive self-regulation of the strategies in accordance with the individual's needs (Zimmerman,1994, as cited in Zimmerman,1996). In other terms, these social cognitive phases are as follows: *Observation* which is described as the vicarious induction of a skill by observation of a proficient model; *Imitation* is defined as the emulative performance of a modeled skill while receiving social feedback; *Self-control* is defined as the independent use or practice of a demonstrated skill on a structured task outside the presence of the model; and *Self-regulation* is defined as the Adaptive use of a skill under changing task and contextual conditions (Zimmerman, 1994, as cited in Zimmerman, 1996).

At first, the individual starts noticing what is going on around and tries to discover what atmosphere he is in and how things work within the climate's conditions (Zimmerman, 1994, as cited in Zimmerman,1996). That is to say, the individual starts witnessing the behavior of others. Then, he moves to the following step which is imitation. Zimmerman (1994) as cited in Zimmerman (1996) mentioned that during this stage, the individual tries modeling and to do likewise what he has observed in this particular environment. Once he starts imitating, he commences controlling his skills and actions, also undertaking the effective strategies that help him regulate himself while achieving his targets (Zimmerman, 1994 as cited in Zimmerman,1996). In other words, observation, imitation, and self-control are important steps that paved the way for better self-regulation of one's self. Overall, these three steps represent

a training strategy that starts with observational activities and eventually progresses to self-regulation. In the same line, Zimmerman and Kitsantas (1996) asserted that SR includes proactive learning activities such as goal setting, self-efficacy perceptions, attributions, and self-consequences, as well as metacognitive learning processes such as strategic planning, monitoring, and adapting.

5. Phases of Self-Regulation

The previous section tackled the phases that contribute to the development of SR; Whereas, this section will be about the main phases of the SR. Zimmerman (2000) stated that self-regulation processes have been classified into three cyclical phases from a social cognitive standpoint. These three cyclical phases are named as follows: *Forethought*, *Performance or Volitional Control*, and *Self-Reflection Processes* (Zimmerman, 2000).

To begin with, Zimmerman (2000) defined *The Forethought* phase as the influencing processes that precede and set the stage for efforts to act. Further, *Volitional Control or Performance* phase refers to processes that occur during motoric attempts that influence attention and action (Zimmerman,2000). Furthermore, Zimmerman (2000) also defined *Self-Reflection* phase as the phase which entails processes that occur following performance efforts and influence a person's reaction to that experience. These self-reflections, in turn, influence forethought regarding subsequent motoric efforts; thus completing a self-regulatory cycle (Zimmerman,2000).

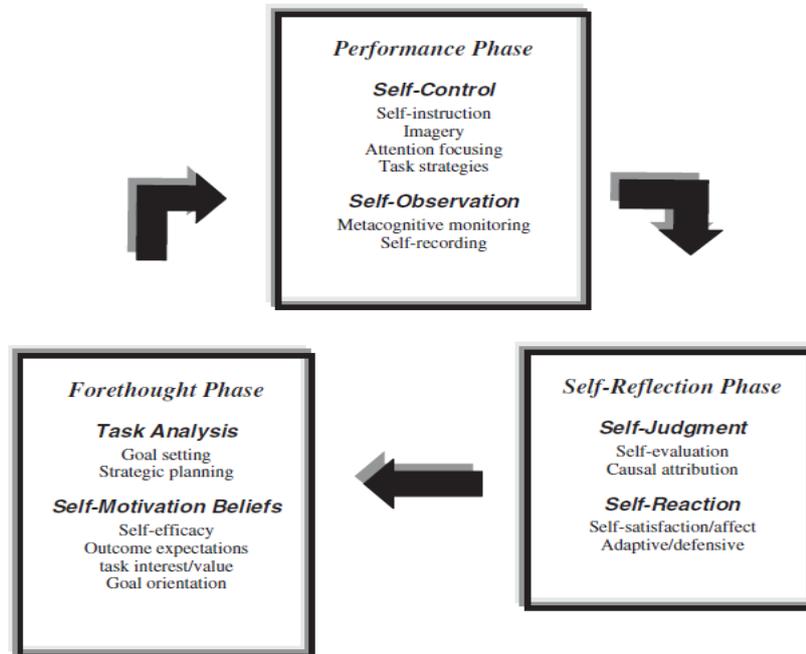
To recapitulate, the Forethought phase occurs before initiating action, setting the stage and shaping one's intentions and aims. The Volitional Control or Performance phase occurs during the actual execution of actions, altering attention and behavior. Following performance efforts, the Self-Reflection phase entails reflecting on the experience and evaluating one's own

activities. These reflections influence future intents and efforts, completing the self-regulation cycle. Overall, the framework of Zimmerman (2000) highlights the dynamic nature of self-regulation, with each phase influencing the subsequent phases in a continuous cycle of forethought, action, and reflection.

Additionally, Zimmerman (2000) claimed that each phase includes sub-processes of SR. According to Zimmerman (2000), the forethought phase includes: Task Analysis, Goal setting, Strategic Planning, Self-motivation Beliefs, Self-Efficacy, Outcome Expectations, Intrinsic Interest/Value, and Goal Orientation. On the other hand, Self-Control, Self-Instruction, Imagery, Attention Focusing, Task Strategies, Self-Observation, Self-Recording, and Self-Experimentation are included within the Performance /volitional control phase (Zimmerman, 2000). Zimmerman (2000) also mentioned that the Self-Reflection Phase contains the following sub-processes: Self-judgment, Self-Evaluation, Causal Attribution Self-reaction, Self-satisfaction/affect, and Adaptive-Defensive. See figure (2) to understand more.

Figure 2:

Phases and Sub-Processes of Self-Regulation.



Note.

Zimmerman and Campillo (2003) as cited in Zimmerman (2008).

Table 1 presents the different phases and sub-processes involved in the self-regulation process. Each sub-process is defined, along with the corresponding references for further understanding. The table serves as an explanatory tool for Figure 2, providing a comprehensive overview of the components and stages involved in self-regulation. Hence, the following table (Table 1) presents definitions of the sub-processes mentioned earlier within the phase of SR:

Table 1:*Phases and Sub-Processes of Self-Regulation.*

Sub-process	Definition
Task analysis	This involves breaking down the goals into smaller, manageable tasks and identifying the resources and strategies required to complete them (Zimmerman, 2000).
Self-motivation	This involves setting up rewards and incentives for achieving goals and developing a positive attitude towards the tasks required to achieve them (Zimmerman, 2000).
Self-efficacy	This refers to an individual's belief in their ability to perform the actions required to achieve their goals (Zimmerman, 2000).
Outcome expectations	refer to self-motivational beliefs about the ultimate ends of learning, practice, and performance (Zimmerman, 2006).
Goal Setting	This is the first phase of self-regulation, where individuals identify a specific goal or outcome they want to achieve (Zimmerman, 2000).
Self-evaluations	are not automatic outcomes of performance but, rather, depend on an individual's selection and interpretation of an appropriate criterion (Bandura, 1991).
self-satisfaction	reactions are positively related to subsequent sources of motivation (Zimmerman, 2000).
Adaptive-defensive	refer to self-reactions about how to alter one's self-regulatory approach during subsequent efforts to learn or perform (Zimmerman, 2006).

Note. Table that explains the previous Figure (i.e. Figure 2)

6. The Dimensions of Self-Regulation

Zimmerman (2000) stated that there are three dimensions of self-regulation named as follows: Behavioral Self-Regulation, Environmental Self-Regulation, and Covert Self-Regulation. Zimmerman (2000) defined these three dimensions as follows: Behavioral Self-Regulation involves self-observing and strategically adjusting performance processes, such as one's method of learning, whereas environmental self-regulation refers to observing and adjusting environmental conditions or outcomes. The other dimension is Covert Self-Regulation which involves monitoring and adjusting cognitive and affective states, such as imagery for remembering or relaxing (Zimmerman, 2000). Moreover, Bandura and Cervone (1986) argued that the relative strength and temporal patterning of mutual causation among personal, contextual, and behavioral factors can be adjusted through self-regulation efforts, behavioral performance results, and environmental context modifications.

Likewise, Zimmerman (1989) mentioned that during the environmental regulation when a student initiates the proactive use of an environmental manipulation strategy, they would respond with a collection of interventions that alter the environment that could be conducive to learning. In line with his assumptions, Zimmerman (1989) clarified that the extent to which this structured learning setting is used in a classroom would depend equally on the perceptions of its effectiveness in helping students learn, and this would be conveyed reciprocally through a feedback loop between the environment and the students. That is, when a student began the proactive use of an environmental manipulation method, they would reply with a series of interventions that affect the environment. Hence, it could be beneficial to learning.

Additionally, Zimmerman (1989) explained that a person's covert (i.e. cognitive) processes influence one another. Accordingly, there is a reciprocal relationship between the

individual's cognitive processes. Zimmerman (1989) added that social cognitive theorists are notably interested in the effects of metacognitive processes on other personal processes such as the work of Bozorgian (2014). In fact, Bozorgian (2014) work results showed that after learning about metacognition, the students' listening abilities improved. Hence, the metacognitive knowledge increases listeners' awareness in terms of the cognitive process and helps them be goal oriented for listening tasks (Bozorgian, 2014). Thus, the more the students are meta-cognitively talented and aware of the level of their metacognitive skills, the more it would help them in enhancing their academic performance. Zimmerman (1989) also pointed out that it is thought that the usage of such methods is mutually regulated via a covert feedback loop.

On the other hand, Luszczynska et al. (2004) mentioned another dimension of SR known as Self-regulation of emotions. This latter is defined as modification of subjective experience of emotions in such a way as to optimize some personal goals (Luszczynska et al., 2004). For that particular reason, several studies were conducted on the dimensions of SR such as Robazza et al. (2004)' s study.

Robazza et al. (2004) stated that research evidence in the rapidly growing area of performance enhancement through emotion regulation is particularly important. In their research paper, Robazza et al. (2004) mentioned the Individual Zones of Optimal Functioning (IZOF), a framework that was created by Yuri Hanin, a sport psychologist, in the 1970s. It gives coaches and athletes a foundation for improving sports performance by identifying and managing an athlete's optimal zone (Robazza et al., 2004). Thus, the IZOF model was viewed as an important foundation that plays a significant role in developing athletes' functioning. Robazza et al. (2004) demonstrated that the optimal zone is a distinct mental and physiological state that results in the highest possible performance for the specific athlete. Robazza et al. (2004) also added that goal-setting, visualization, relaxation training, and controlling emotions

and arousal levels are all tactics that coaches and athletes can use to improve performance. From a conceptual standpoint, in this framework, athletes perform best when they are in their optimal zone, and they function less effectively when they are outside of it (Robazza et al., 2004). On the other hand, Robazza et al. (2004) claimed that an individual self-observes and strategically changes his or her overt performance during behavioral self-regulation (Robazza et al., 2004). Thus, during the journey of controlling behaviors, an individual takes some adjustments into action accordingly after realizing the surroundings. Furthermore, Robazza et al. (2004) stated that when it comes to environmental self-regulation, a person observes and adjusts his or her environmental conditions or outcomes.

Additionally, (Robazza et al., (2004) mentioned that throughout covert self-regulation, an individual observes and adjusts cognitive and affective states. Individuals' ability to correctly and consistently evaluate their own outcomes is critical to how effectively they can make strategic modifications and form their perceptions about themselves. This includes their self-efficacy perceptions, or their belief in their ability to function well in all three aspects of self-regulation (Robazza et al., 2004). In other words, Consistency is considered to be the key element towards the success of better regulation within the environmental, behavioral as well as covert realms.

Similar to Robazza et al. (2004), Zimmerman (2006)'s definition of SR emphasizes the internal efforts that individuals make to govern their thoughts, emotions, and actions, as well as their interpersonal interactions, in order to achieve personal goals. According to this approach, self-regulation comprises the deliberate planning and manipulation of various internal and external processes. Although research on academic self-regulation is still in its early stages, key strategies used by successful students to overcome personal and environmental obstacles and achieve academic success have already been revealed.

7. Self-Regulated Learning

Self-Regulated Learning (SRL) has emerged as one of the most important topics of study in educational psychology. According to Zimmerman (2000), students display self-regulation when they actively participate in their learning processes via metacognitive, motivational, and behavioral participation. Zimmerman (2000) further explained that students demonstrate self-regulation when they are actively and consciously aware of their learning strategies (metacognitive), have the drive and want to succeed (motivational), and take deliberate activities to assist their learning (behavioral). According to Zimmerman (2000), students that exhibit these characteristics and actively participate in their own learning are termed self-regulated. In the same vein, Luszczynska et al. (2004) highlighted that SRL is a process of planning and controlling student's cognitive, emotions, behaviors, and environment to reach academic success.

Actually, Zimmerman and Schunk (2007) added that Self-regulated learning (SRL) refers to the self-directive processes and self-beliefs that enable learners to transform their mental abilities, such as verbal aptitude, into an academic performance skill, such as writing. Besides, SRL is viewed as proactive processes that students use to acquire academic skill, such as setting goals, selecting and deploying strategies, and self-monitoring one's effectiveness, rather than as a reactive event that happens to students due to impersonal forces (Zimmerman & Schunk, 2007). Although SRL was viewed as especially important during personally directed forms of learning, such as discovery learning, self-selected reading, or seeking information from electronic sources, it was also deemed important in social forms of learning, such as seeking help from peers, parents, and teachers (Zimmerman & Schunk, 2007).

Furthermore, Zimmerman and Schunk (2007) argued that the core issue is whether a learner displays personal initiative, perseverance, and adaptive skill. Zimmerman and Schunk (2007) also added that these proactive qualities of learners stem from advantageous motivational feelings and beliefs as well as metacognitive strategies. That is to say, the main issue is the learner's ability to demonstrate personal initiative, perseverance, and consistency in terms of their learning journey. Thus, learners' proactive characteristics derive from positive motivational attitudes and beliefs, as well as metacognitive methods which, in turn, enhance their academic performance.

On the other hand, Dunlosky and Ariel (2011) provided a more general definition of SRL that includes the word "metacognitive". In fact, Dunlosky & Ariel (2011) claimed that "An act of SRL is any student behavior or cognition that is directed toward reducing a discrepancy between a current perceived state and a goal relevant to performance or learning" (Dunlosky & Ariel, 2011, p. 105). Although self-regulation itself does not require that regulators are aware of their ongoing efforts, Dunlosky and Ariel (2011) assumed that much of students' SRL involves self-awareness and reflection, and therefore, explicit metacognitive processes. Dunlosky and Ariel (2011) also clarified that metacognitive processes include people's monitoring and control of their cognitions.

Further, according to Zimmerman and Kitsantas (1996), SRL refers to processes that learners use to activate and maintain cognitions, emotions, and behaviors to attain personal goals. Furthermore, Panadero (2017) stated that SRL encompasses cognitive, metacognitive, behavioral, motivational, and emotional elements of learning. Therefore, SRL is viewed as an exceptional framework under which an array of variables influence learning. In other words, self-efficacy, volition, cognitive strategies, goal setting, goal orientation, metacognitive monitoring, and self-evaluation are fundamental concepts that are included under the umbrella

of SRL; hence, they represent its core components. Additionally, Panadero (2017) Self-regulated learning is a multifaceted concept that emphasizes the learner's active participation.

To conclude, there are many definitions of self-regulation, and scholars did not reach a consensus in different areas, even within educational psychology (Zimmerman, 2008). Overall, SRL was seen as a process of learning which encompasses a variety of strategies.

8. Metacognition, monitoring and self-regulation

Self-regulation, metacognition, and self-regulated learning are essential concepts in educational theory, research, and practice. It is noteworthy to know how these crucial concepts are defined by scholars. First of all, metacognition, a term coined by Flavell (1979) has been described as the awareness and control of mental thoughts. Flavell (1979) believed that monitoring a wide range of cognitive enterprises takes place through the activities and interactions of four groups of phenomena: metacognitive knowledge, metacognitive experiences, goals, and actions or strategies. Flavell (1979) differentiated between Metacognitive experiences and Metacognitive knowledge. Flavell (1979) asserted that metacognitive knowledge is that portion of an individual recorded world information that is concerned with humans as cognitive creatures and their various cognitive tasks, goals, actions, and experiences. Metacognitive experiences, on the other hand, are any conscious cognitive or affective sensations that accompany and belong to any intellectual endeavor (Flavell, 1979).

Thamraksa (2005) claimed that Students with strong metacognition understand how to learn and what to do in any learning situation. Thus, the more students use metacognitive strategies the more they can perform better and achieve their goals. Therefore, they can be more successful within academic contexts. Thamraksa (2005) also added that metacognition is

widely accepted to improve successful learning in a range of circumstances; students who are skilled in metacognition are more strategic and perform better than those who are not.

Dunlosky and Ariel (2011) defined metacognitive as people's monitoring and control of their cognitions. This latter was central to their 2011 study for understanding SRL and allocation of study time. Despite the fact that SR does not require regulators to be aware of their ongoing activities. Dunlosky and Ariel (2011) hypothesized that self-awareness and reflection, i.e. explicit metacognitive processes, play a significant role in students' self-regulated learning. Although Dunlosky and Ariel (2011)'s definition of self-regulated learning is intentionally broad, some scientists, such as Zimmerman (2001), have included metacognitive in their definitions of self-regulation. Zimmerman (2001) as cited in Dunlosky and Ariel (2011) noted that students are self-regulated to the extent that they are metacognitively, motivationally, and behaviorally active participants in their own learning processes. Besides that, Li et al. (2018) asserted that metacognition and SR sometimes refer to the same concept, whereas other models view metacognitive strategies as an important element of self-regulation. _

On the other hand, Self-monitoring is the act of observing and evaluating one's own conduct (Zimmerman, 1995). It is worth noting that SR entails more than just self-monitoring; it also entails active control and management of one's own behavior, motivation, and affect (Zimmerman, 1995). As a result, self-regulated learners are the ones who can influence their own motivation, emotion, and behavior rather than simply monitoring them.

Zimmerman (1995) also distinguished between self-regulation and self-monitoring. In the view of Zimmerman (1995), SR entails using cognitive and behavioral techniques to achieve one's goals, whereas self-monitoring entails observing and evaluating one's own conduct. Furthermore, according to Zimmerman (1995), SR is a more active and intentional process than self-monitoring, which can occur automatically and without conscious effort. In other words,

SR is a broader concept that entails different cognitive strategies; one of them is self-monitoring.

Consequently, SRL and metacognition are related but distinct ideas in the field of cognitive psychology. The process through which individuals actively monitor and manage their own learning is referred to as self-regulated learning. Setting goals, developing strategies, monitoring achievements, and making adjustments as needed are all part of this process. Metacognition, on the other hand, is the recognition and comprehension of one's own cognitive processes. This includes being aware of one's own mental processes, planning and monitoring one's own learning, and evaluating one's own understanding of a topic. To summarize, self-regulation is the active management of one's own learning, whereas metacognition is the awareness and knowledge of one's own cognitive processes.

9. Instruments that Assess Self-Regulation

SR is an important aspect of human behavior that supports goal achievement, maintaining focus, and self-control. SR measurement can be challenging because it requires monitoring and controlling one's thoughts, emotions, and behaviors. Researchers commonly use a variety of techniques to examine SR in their studies.

In fact, one of the main instruments that were used to measure SR related studies is Self-Report Questionnaires. Pintrich et al. (1993) stated that most SR questionnaires use reliable Likert type scales to assess the frequency of students' reported strategy use, for example the MSLQ. In addition to that, Pintrich et al. (1993) sought to validate a self-report questionnaire made to measure students' motivation and learning strategies in academic contexts in their 1993 study. Pintrich et al. (1993) added that the (MSLQ) has 81 items that measure a variety of motivational factors, including self-efficacy, task value, intrinsic and

extrinsic goal orientation, and test anxiety. It also measures learning strategies, including rehearsing, elaborating, organizing, using critical thinking, and metacognitive self-regulation (Pintrich et al., 1993). The MSLQ had high reliability and validity, consistent factor structures, and correlations with other measures of academic achievement, motivation, and learning, according to the authors, who administered it to a sizable sample of undergraduate students from various disciplines and institutions (Pintrich et al., 1993). Pintrich et al. (1993) asserted that the MSLQ is a useful tool for evaluating students' motivational and strategic processes, and it can guide instructional interventions and research on academic performance and persistence. Furthermore, the MSLQ was found to be a valid predictor of academic achievement, with students who reported using more effective learning strategies and having higher levels of motivation achieving higher grades (Pintrich et al., 1993).

Besides that, a questionnaire to measure participants' self-efficacy, self-regulation, and goal orientation was used by Zimmerman and Kitsantas (1996). The results showed that participants who engaged in goal setting and self-monitoring showed greater improvement in their typing performance and self-regulated learning than those who did not engage in these activities.

Because observations capture ongoing rather than recalled actions, Observations of Overt Behavior is another instrument used in SR related studies. In fact, the purpose of the study was to look into how different classroom settings affect young children's motivation to participate in reading activities (Turner, 1995). In accordance with Turner (1995)'s findings, the classroom atmosphere had a significant impact on the children's motivation for literacy. Therefore, it affects their learning, monitoring and controlling processes. Thus, when the students were given the opportunity to make choices and manage their learning, and when they received positive comments and encouragement from their teachers, they were more motivated (Turner, 1995). Furthermore, observation studies are frequently supplemented when

researchers use structured or semi-structured interviews (Turner, 1995). The researchers were able to directly witness interactions between parents and their children during homework time, resulting in a full and comprehensive understanding of the parent-child relationship. The researchers were also able to catch nuanced characteristics of the parent-child relationship that would not have been visible using other data gathering methods, such as interviews or questionnaires, by seeing the families in their natural context.

Xu and Corno (1998) study's aim was to investigate how families from different socioeconomic backgrounds interacted with their children during homework time and how this interaction affected the children's learning outcomes. Six families with third-grade children from varied socioeconomic backgrounds were studied in detail (Xu & Corno, 1998). Moreover, the information was acquired through observations, interviews, and document analysis, and it was then thematically examined (Xu & Corno, 1998). The findings revealed that the quality of parent-child communication during homework time was a significant predictor of the children's academic development (Xu & Corno, 1998). Therefore, those whose parents provided more aid, counseling, and monitoring during homework time outperformed those whose parents were less involved.

Furthermore, Ericsson (2006) asserted that in a think-aloud session, the student reports thoughts, feelings, and SR strategies while solving a problem or completing an assignment. Likewise, a think-aloud protocol involves students' reports about their thoughts and cognitive processes while performing a task (Ericsson, 2006). Ericsson (2006) looked into the use of protocol analysis to investigate expert mental processes while doing representative tasks. Ericsson (2006) mentioned that experts in a variety of fields were challenged to complete tasks while verbalizing their thoughts. Ericsson (2006)'s study revealed that when doing representative tasks, specialists from various disciplines use similar mental processes. Experts, in particular, adopt a deliberate and systematic approach to problem solving, drawing

on their knowledge and experience to generate and evaluate feasible solutions (Ericsson,2006). As well, Ericsson (2006)'s study discovered that specialists from many domains employ comparable thought processes when doing representative tasks. Besides, the findings have crucial significance for understanding the cognitive processes underpinning expert performance and devising training programs to improve expertise (Ericsson,2006). Protocol analysis enabled a deep and nuanced assessment of expert thinking processes, providing vital insights into how experts approach and solve complicated problems.

To sum up, instruments used in self-regulation studies have varied, with researchers choosing tools based on the nature of the study, research questions, and constructs to be measured. These instruments have included from self-report questionnaires to behavioral and, more recently, physiological assessments. Overall, effective evaluation and assessment of self-regulation, which is vital for understanding its role in academic accomplishment and personal success, requires the use of appropriate and trustworthy measures.

10. Conclusion

Self-regulation is a crucial aspect of human behavior that entails the ability to manage and alter one's thoughts, emotions, and actions in order to achieve personal goals and adapt to changing circumstances. Individuals who have self-regulation are able to manage their internal states, such as attention, motivation, and affect, as well as their external environment, by devising and implementing effective strategies. Self-regulation is necessary for success in many domains, including school, job, relationships, and health. Self-regulation is not a fixed characteristic, but rather a collection of skills that may be honed and improved via conscious practice and feedback. Yet most of the research discussed in this chapter has not been focused on the role of self-regulation on classroom engagement; rather, there is more emphasis on

academic achievement. Self-regulated learning research is based on the social cognitive assumption that how students construct their own cognition, motivation, behavior and perceptions of the environment is central to understanding their academic performance and achievement.

The following chapter deals with the practical part of the work. It entails the methodological procedures, the research methodology employed, and data collection methods. Furthermore, the next chapter describes the data analysis procedures employed. Additionally, it discusses the population and sampling technique utilized. Subsequently, the validity and the reliability of study instruments, data analysis, and research paradigm are displayed, as well as, its methodological approach.

CHAPTER THREE

Chapter Three: Fieldwork and Data Analysis

- 1. Introduction**
- 2. Research methodology**
 - 2.1. Research approach**
 - 2.2. Research Paradigm**
- 3. Data Collection Tools**
 - 3.1. Students Questionnaire**
 - 3.1.1. Aims and structure**
 - 3.2. Teachers' Interview**
 - 3.2.1. Aims and structure**
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 - 5.1. Context**
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- 9. Synthesis of the findings**
- 10. Conclusion**

1. Introduction

The third chapter covers the methodology of the current research. This study aims to investigate if there is a relationship between EFL master students' self-regulation and their classroom engagement. The methodological procedures are summarized. First, the study presents the research methodology employed in this study, which encompasses the research paradigm, research approach, and data collection methods. Furthermore, this chapter describes the data analysis procedures employed to analyze the gathered data. Additionally, the chapter discusses the population and sampling technique utilized in this study to ensure a representative sampling. Subsequently, the validity and the reliability of study instruments, data analysis, and research paradigm are displayed. In addition to that, this study follows the mixed-method approach. The rationale for selecting this method is predicated upon generating a robust description and interpretation of the data, and to make quantitative results more accessible. Another significant reason for choosing a mixed method is to gather many points of view in order to generate a comprehensive understanding. Therefore, the utilization of this tool facilitates a comprehensive explanation of statistical data. In the case of our investigation, we seek to discover if there is a relationship between the self-regulation of Mohamed Khider University EFL master one students and their classroom engagement. This research work also endeavors to uncover if Mohamed Khider University EFL students' master one self-regulation helps in enhancing their classroom engagement. Besides, the processes or strategies of self-regulation among Mohamed Khider University EFL master one students, and the processes that they use to engage in different learning tasks are among the objectives that this study aims to reveal. AS WELL AS teachers.

2. Research methodology

2.1. Research approach

This research study uses a mixed method approach. Therefore, qualitative and quantitative research methods are combined and integrated into a single study. It entails collecting and analyzing qualitative and quantitative data in order to gain a better understanding of a phenomenon and find answers to research questions. Hence, to broaden the evidence, increase the credibility of the findings.

2.2. Research Paradigm

The research paradigm that can be used in this master dissertation is the pragmatism paradigm. Pragmatism is a research paradigm that emphasizes the use of diverse approaches to address research questions and tries to bridge the gap between theory and practice (Creswell, 2014). In this study, the use of a mixed-methods approach combines both quantitative and qualitative methods to gain a more comprehensive understanding of the relationship between student self-regulation and their classroom engagement.

Indeed, there are many factors that determine the type of research paradigm. As for (Creswell, 2014), the type of research problem or issue being addressed, the researchers' personal experiences, and the study's target audiences are all taken into consideration when choosing a research approach. This is true for mixed methods research, in which researchers liberally draw on both quantitative and qualitative assumptions (Creswell, 2014). Hence, pragmatism is not committed to any one system of philosophy and reality (Creswell, 2014).

Creswell (2014) also pointed out that pragmatism opens the door to diverse approaches, distinct worldviews, and different assumptions, as well as alternative types of data collection and analysis for the mixed methods researcher. In other words, the pragmatism paradigm acknowledges that different research questions may require different methods to answer them, and the use of multiple methods can enhance the validity and reliability of the findings. This paradigm proved particularly appropriate for this study since it allows for the integration of

both quantitative and qualitative data to create a more comprehensive knowledge of the research problem.

3. Data Collection Tools

3.1. Students Questionnaire

3.1.1. Aims and structure

One of the selected tools for gathering data in this study is a semi-structured questionnaire. This questionnaire aims at discovering if there is any kind of relationship between EFL master students' self-regulation and their academic engagement. Likewise, it endeavors to uncover the strategies of self-regulation among EFL master students. Besides, it seeks to reveal the methods and strategies that they use to engage in different learning tasks.

Actually, this students' questionnaire consists of 33 items arranged logically and divided into 3 sections. The first consists of 13 items about students' self-regulation and one question about students' importance level of learning English. This latter is divided into 3 subsections. In each subsection, the participants are provided with different cases where the students are, respectively, cognitively, behaviorally, and emotionally self-regulated. The second section involves 15 items about students' classroom engagement. This is similarly divided into three subsections. Each subsection provides the participants with a variety of cases in which the students are cognitively, behaviorally, and emotionally engaged. Within the two sections participants are asked to rate how closely they are related to these various cases on a scale of 1 (strongly unrelated) to 4 (highly related). Additionally, a number of definitions of the two notions (i.e. Self-Regulation and Student Engagement) are provided in the beginning of each section. Finally, the last section is about the correlation between self-regulation and student engagement. It includes 4 items, three of them are open-ended questions and one of

them is a multiple choice question. This section inquires the participants to share their opinions about their self-regulation and their classroom engagements, and if one affects the other.

3.2. Teachers' Interview

3.2.1. Aims and structure

Another qualitative instrument, a semi-structured interview with EFL university teachers, is planned to be used to fill in the gaps in our study that could not be covered with just one data gathering approach. This interview aims also at discovering if there is any kind of relationship between EFL university students' self-regulation and their academic engagement. Besides that, it attempts to uncover the techniques that teachers use to enhance their students' classroom engagement. Furthermore, it endeavors to investigate EFL teachers' perceptions on EFL master students' engagement in relation to their self-regulation.

In fact, the teachers' interview involves 10 open-ended questions that are ordered logically. The teachers were reached in person to obtain their availability for the interviews, except one of them who was approached online. The aim of this instrument is to discover if there is a relationship between students' self-regulation and their classroom engagement. To be more precise, it seeks to discover if Mohamed Khider University EFL students' self-regulation helps in enhancing their classroom engagement. It intends to reveal not only the processes or strategies of self-regulation among EFL students, but also the processes that EFL students use to engage in different learning tasks. In addition to that, it aims at revealing EFL teachers' perceptions on EFL master students' engagement in relation to their self-regulation.

Thus, the interview questions focus on understanding the techniques that teachers employ to increase student self-regulation and engagement, as well as their perceptions of the relationship between these two variables.

4. Data Analysis

The collected data will be analyzed using a combination of quantitative and qualitative methods. The descriptive statistics will be utilized to analyze questionnaire results using frequency and percentage. Whereas, the interviews will be transcribed and thematically analyzed in order to identify common themes and patterns in the responses of the teachers.

5. Context and Participant

5.1.Context

The University of Mohamed Khider faculty of letters and foreign languages, particularly, The English Department in Biskra is the physical context of this research study. The reason for choosing this place is the University where the researcher is studying. Hence, the researcher saves time and effort in finding participants for the current study. Besides, the researcher has clear insights on the academic environment settings and of the courses presented in each year. Thus, the researcher can determine which student level is adequate for this study. Therefore, these reasons are considered to be advantageous in terms of time and practicality for this research work.

5.2. Participants

5 EFL University teachers and 20 EFL Master one students are the target sample of this study. The reason behind choosing Master one students lies on two main aspects. The first one is that they studied academic self-regulation as a main important aspect in their Applied Linguistics and Didactics lectures. As a result of that, they have previous knowledge about the variables of the current study. The second reason is that they are, to some extent, more mature than the licensed students in terms of acquiring a remarkable knowledge about their self-regulation and the kind of the learning strategies they use to engage in different tasks and activities in the classroom. Accordingly, EFL master one students are opted to be the

appropriate sample for this research work. These considerations were thought to bring advantages in terms of efficiency and practicality.

However, five EFL university teachers are selected to be part of this study's sample. Two of them teach written and oral expression, and specialized courses such as ESP, syllabus design, academic writing, cognitive psychology and linguistics. On top of that, teachers' qualifications differ from one to another: Magister, Ph.D. in English and an accreditation in the academic field. Teachers' teaching experience ranges from 5 years to 33 years. Whereas, the levels of instruction include the five levels; ranging from first-year license to master two (Refer to the next table).

Table 2:*Profile Information of the EFL Interviewed Teachers.*

Participant	Teaching Qualification	Teaching Experience	Teaching Level	Modules
Teacher 1	Doctorate degree in Applied Linguistics	5 years	L1, L2, and Master 2.	Oral and written expressions, Reading, ESP.
Teacher 2	Magister	7 years	L1, L2, and L3.	Phonetics, ESP, Written Expression, Oral Expression, Culture of the Language, Civilization of the Language, Reading Comprehension, Grammar
Teacher 3	doctorate degree in Applied linguistics	15 years	L1, L3, Master 1 , and Master 2.	ESP, Academic writing, language Mastery, oral expression, psychology
Teacher 4	PhD in English language and education and an accreditation in the academic field.	8 years	L3, Master 1.	like written and oral expression, and specialized courses such as ESP, syllabus design, academic writing, cognitive psychology and linguistics
Teacher 5	PhD in English language and education	33years	L1;L3 masters classes	British and American Literature phonetics linguistics, language skills; oral expression, writing; translation,ESP;EAP

6. Population Sampling

Since individuals who meet particular criteria relating to the research subject are chosen by the researcher; non-probability purposive sampling is the adequate population sampling for this research study.

7. Validity and Reliability

The questionnaire and the interview were piloted to ensure the results' validity and reliability. Three teachers piloted and validated the questionnaire, and the Cronbach's Alpha Value of the questionnaire is 0.692 (refer to the next table). Piloting the questionnaire involves testing the questionnaire with a small sample of participants (3 students) before its full-scale implementation. The purpose of piloting is to assess the clarity, comprehensibility, and effectiveness of the questionnaire items and instructions. Nevertheless, six teachers piloted and validated the interview. Indeed, the pilot testing helped to assess whether the questions were simple and easily comprehended by respondents.

Table 3:

Reliability Statistics of the Questionnaire.

Cronbach's Alpha Value	Number of Items
0.692	33

8. Results and Discussion

8.1. Results of the questionnaire

The semi-structured questionnaire entails 33 items and is divided into 3 sections. The first section encompasses 14 items which represent 13 cases where students are regulated cognitively, behaviorally, and emotionally, in addition to one item that entails a question about students' English language learning importance level. Further, the second section is about students' classroom engagement which contains 15 items. These 15 items depict cases where students are cognitively, behaviorally, and emotionally engaged in the classroom. Lastly, the third section includes one multiple-choice question and three open-ended questions.

Descriptive statistics including counts and percentages, and the results are presented in tables and figures.

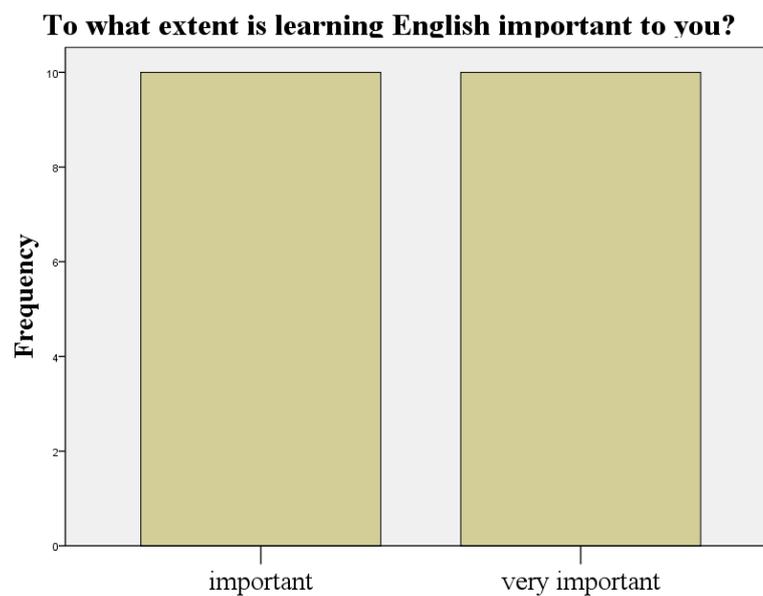
Section One: Self-Regulation

Item 1: To what extent learning English is important to you?

The ultimate goal of the first question is to ascertain that learning English is essential for them; therefore, they are motivated to learn it no matter what. In order to do so, the participants were given specific options. These options are as follows: Zero importance; Little importance; neutral; important; and very important.

Figure 3:

EFL masters Students' learning English importance level.



As it is presented in the above graph, all participants (100%) agreed upon the importance of learning English. Their responses are divided into two in which 50% chose the option “Important”, and the other half (50%) chooses “Very important” option. That indicates that they have that sort of intrinsic motivation to learn the language and develop their skills and performance in it.

Item 2: “I pay attention and focus on the material presented even when it is challenging or unfamiliar.”

The students were asked to indicate the extent to which they relate or do not relate to this case “I pay attention and focus on the material presented even when it is challenging or unfamiliar”. They were asked to mark how much they agree or disagree with the previous case by selecting one of the four options (i.e. 1=Strongly not related; 2=Not related; 3=Related; 4=Strongly related).

Table 4:

Descriptive Statistics of the 2nd Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly related	Total
Frequency	1	12	7	20
Percentage	5%	60%	35%	100%

As it is shown in table (4), only one learner cannot be attentive and engaged on the provided content, particularly if dealing with difficulties or unclear concepts. Whilst, almost all of the students (95%) display unwavering cognitive engagement and attentiveness to the content provided despite obstacles or unfamiliarity. Thus, the majority of students argued that they have a great cognitive commitment to comprehending and assimilating the content, remaining attentive throughout.

Item 3: “I apply critical thinking skills to analyze and evaluate information, such as comparing and contrasting different perspectives on a topic.”

The reason behind this question was to find out if the EFL master students are using critical thinking skills while learning English.

Table 5:

Descriptive Statistics of the 3rd Item of Section One of the Students' Questionnaire.

Scale	Strongly related	not	Not related	Related	Strongly related	Total
Frequency	1		2	10	7	20
Percentage	5%		10%	50%	35%	100%

Almost all the respondents of this questionnaire (85%) claimed that they use different critical thinking skills. However, few students (3 students, i.e. 15%) do not use these kinds of skills. That means, most EFL master students apply cognitive abilities on their English learning journey.

Item 4: “I generate new ideas based on previous knowledge and make connections between different concepts.”

This question seeks to discover if EFL master students use generative learning as a learning strategy during their classes. According to Hanke (2012), generative learning is the act of producing comprehension by constructing relationships between concepts of learning material and knowledge and experiences.

Table 6:

Descriptive Statistics of the 4th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	empty answer	Total
Frequency	3	8	8	1	20
Percentage	15%	40%	40%	5%	100%

As it demonstrated in table (6), three members of the participants (i.e. 15%) do not relate to this statement. On the other hand, 80% of the participant students are using generative learning as a learning strategy. Hence, generative learning prioritizes active meaning and understanding production through processes such as critical and creative thinking including problem solving. Subsequently, the more actively learners engage with the subject through producing new ideas and making associations, the more accurately their comprehension will be. It additionally promotes deeper learning.

Item 5: “I reflect on the learning process and identify areas where additional support or practice is needed.”

The purpose of this question is to know if EFL master students' self-reflection and self-assess their learning process.

Table 7:

Descriptive Statistics of the 5th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	2	15	3	20
Percentage	10%	75%	15%	100%

The table (7) demonstrates that 18 students (90%) are reflecting and assessing their English learning process. This shows that these students have a high level of metacognitive awareness and self-regulation. They are proactively assessing their learning process, recognizing areas for growth, and making changes to improve their English language skills. However, 2 learners (10%) do not neither reflect, nor assess their learning process. This could be due to a lack of metacognitive awareness or a disinterest in monitoring their own learning. These students may not think about their learning techniques, progress, or opportunities for development. This latter may be due to several factors such as: fear of failure, lack of motivation, and lack of guidance and support.

Item 6: “When I set goals, I track progress towards achieving them.”

This question shed light on the concept of students' persistence and consistency in the terms of reaching academic goals. Also, it tries to emphasize on EFL master students' ability to control their behaviors in order to attain specific academic aims.

Table 8:

Descriptive Statistics of the 6th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	3	6	11	20
Percentage	15%	30%	55%	100%

Table (8) illustrates that only 3 students (15%) are not able to monitor their progress in pursuit of self-set goals. Thus, a small percentage of participants (15%) had difficulty monitoring progress. This could be due to a lack of self-awareness, a limited comprehension of the goal-setting process, or difficulties appropriately measuring their own performance. Individuals in this category may benefit from additional assistance and instruction in order to improve their monitoring abilities and create a stronger sense of self-regulation. Nevertheless, the majority of the participants (85%) assess and evaluate their advancement towards achieving self-determined goals. In other words, the majority of participants (85%) can monitor their progress towards self-defined goals, indicating a high level of self-regulation. This suggests that these people are actively examining and evaluating their progress towards their self-determined goals.

Item 7: “I can control my behaviors and make adjustments when needed, for instance: taking a break when feeling restless or overwhelmed.”

This question attempts to explore if EFL master students' capacity in controlling their behaviors during stressful situations.

Table 9:

Descriptive Statistics of the 7th Item of Section One of the Students' Questionnaire.

Scale	Strongly not related	Not related	Related	Total
Frequency	1	11	8	20
Percentage	5%	55%	40%	100%

The majority of the informants either related (55%) or strongly related (40%) to this statement; rather, only one of the students' sample does not relate to it. Therefore, almost all EFL master students are able to take control over their behaviors when facing stressful situations.

Item 8: "I follow directions and complete assigned tasks even when feeling unsure or hesitated."

This question endeavors to stress on EFL master students' perseverance. In other words, it seeks to discover whether they stay committed and determined to complete tasks and follow instructions or not, even in the face of uncertainty or hesitation.

Table 10:

Descriptive Statistics of the 8th Item of Section One of the Students' Questionnaire.

Scale	Strongly related	not	Not related	Related	Strongly Related	Total
Frequency	1		2	15	2	20
Percentage	5%		10%	75%	10%	100%

Table (10) depicts that one student (5%) is strongly not related to this case, in addition to two others (10%) who claimed that they do not relate to it either. Hence, 3 participants (15%) cannot display determination in completing assigned tasks even when feeling unsure or hesitant. However, 15 participants assured that they relate to this case. At the same time, other 2 informants said that they strongly related to this case. Thus, those 17 students (85%) have the willingness to keep working towards achieving desired outcomes, despite setbacks or difficulties encountered along the way. Consequently, the majority of the sample persistently follow directions and maintain in completing the tasks given to them, even when they feel uncomfortable or hesitant.

Item 9: “I work independently and responsibly, without needing constant supervision or reminders.”

Through this inquiry, we endeavor to ascertain the extent to which EFL master students exhibit self-directedness in their learning process.

Table 11:

Descriptive Statistics of the 9th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	6	3	11	20
Percentage	30%	15%	55%	100%

Table (11) reveals that 6 students (30%) are not related to this case. This might be because they do not possess self-directed learning skills. On the other hand, 3 students (15%) related to this case, in addition to other 11 students (55%) who are strongly related. This being said that the total of 14 participants (70%) are demonstrating autonomy and accountability in their learning process. Moreover, they display self-reliance without requiring continual supervision or reminders.

Item 10: “I use problem-solving skills (such as: analyzing; synthesizing; creative and critical thinking) to overcome obstacles or conflicts that arise in the classroom.”

This inquiry seeks to explore whether students use a problem-solving approach. Therefore, it attempts to reveal whether or not EFL master students employ cognitive processes and metacognitive strategies.

Table 12:

Descriptive Statistics of the 10th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	3	7	10	20
Percentage	15%	35%	50%	100%

As table (12) illustrates, only 3 students (15%) do not relate to this case while 7 participants (35%) claimed that they are related. Besides, 10 other participants (50%) informed us that they are strongly related to this current case. That is to say, almost the majority of the sample (i.e. 17 students= 85%) are employing skills such as analyzing, synthesizing, creative thinking, and critical thinking to overcome challenges or conflicts encountered in the classroom.

Item 11: “I control impulsive or reactive responses, for example: taking deep breaths and calming down when feeling angry or frustrated during a challenging assignment instead of reacting impulsively and lashing out at others.”

Table 13:

Descriptive Statistics of the 11th Item of Section One of the Students' Questionnaire.

Scale	Strongly related	not Not related	Related	Strongly Related	Total
Frequency	2	6	8	4	20
Percentage	10%	30%	40%	20%	100%

As it is shown in table (13), although a minority of the students (8 out of 20) do not perceive a direct connection or relevance to the case. However, a majority of the students (12 out of 20; 60%) perceive a certain level of relevance or connection between the case of controlling impulsive or reactive responses. Among the students who find a connection, a higher number (8 out of 20. 40%) perceive a moderate level of relevance ("Related"), while a smaller number (4 out of 20; 20%) perceive a stronger level of relevance ("Strongly related"). These findings imply that a sizable proportion of students (60%) understand the significance of managing impulsive or reactive behaviors in connection to self-regulation and classroom participation. However, it is important to mention that some students (40%) cannot discern a straight link, indicating possible differences in their experiences or perspectives.

Item 12: "I communicate personal feelings and needs in a respectful way during a class discussion instead of shutting down or becoming defensive."

This question is designed to find out if EFL master students are effectively communicating their personal feelings and needs or not.

Table 14:

Descriptive Statistics of the 12th Item of Section One of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	7	8	5	20
Percentage	35%	40%	25%	100%

Table (14) highlights that a majority of the students (13 out of 20; 65%) perceive a certain level of relevance or connection between the case of communicating personal feelings and needs. Among the students who find a connection, a higher number (8 out of 20; 40%) perceive a moderate level of relevance ("Related"), while a smaller number (5 out of 20; 25%) perceive a stronger level of relevance ("Strongly related"). On the other hand, a smaller number of students (7 out of 20; 35%) do not perceive a direct connection or relevance to the case. That might be due to the individual differences in learning styles and preferences. Some students may prefer more factual or objective learning methodologies, whereas discussing personal sentiments and desires may be regarded as subjective or unconnected to their academic goals. It is also possible that these students have distinct personal experiences or backgrounds that make it difficult for them to relate to the specific case. They may not have encountered situations in which expressing personal sentiments and needs was an important component of their existence, resulting in a perceived lack of relevance.

Item 13: “I use positive self-talk to overcome anxiety and perform well on a difficult test\exam; for example: I say “I can do this” instead of “I can’t do it”.”

This question tries to reveal if EFL master students are employing positive self-affirmation techniques to reduce anxiety and achieve optimal performance throughout difficult tests or examinations.

Table 15:

Descriptive Statistics of the 13th Item of Section One of the Students' Questionnaire.

Scale	Strongly related	not	Not related	Related	Strongly Related	Total
Frequency	1		6	7	6	20
Percentage	5%		30%	35%	30%	100%

As table (15) represents, one student (5%) selecting "strongly not related" indicates that at least one student does not believe there is a substantial link between utilizing positive self-talk and test performance. Additionally, six students (30%) selecting "not related" show that some students do not believe there is a direct relationship between utilizing positive self-talk and test performance. Besides, 7 students (35%) selecting "related" indicates that the majority of students believe there is a connection between utilizing positive self-talk and test performance. Moreover, six students (30%) selecting "strongly related" suggests that a large number of students believe there is a link between using positive self-talk and test performance. To recapitulate, 7 students (35%) lack the ability to replace negative or self-defeating thoughts with positive and empowering ones to overcome anxiety and perform well on exams and tests. Meanwhile, 13 students (65%) are able to do that. Thus the majority of the sample employs positive self-talk as an effective strategy to reduce stress level during tests and examination phase.

Item 14: “I stay focused and present during class lectures instead of becoming distracted or disengaged.”

This question is designed to explore if EFL master students are active listeners within classroom contexts.

Table 16:

Descriptive Statistics of the 14th Item of Section One of the Students’ Questionnaire.

Scale	Strongly not related	Not related	Related	Strongly Related	Total
Frequency	2	4	9	5	20
Percentage	10%	20%	45%	25%	100%

This table (16) depicts that the majority of students (9 out of 20; 45%) responded that they are associated with this case. This indicates that they understand the significance of remaining focused and engaged throughout lectures. Further, five students (25%) selected "Strongly Related," indicating a stronger relevance to the case. However, 6 students (2 "strongly not related" and 4 "not related") did not see any relevance to this case. Overall, the majority of students recognize the need to remain focused and present during class lectures, whereas a smaller percentage does not.

Section Two: Students’ Classroom Engagement

Item 1: “I set goals and monitor my learning process.”

This question is formulated to investigate whether EFL master students are self-monitoring learners when they set goals or not.

Table 17:

Descriptive Statistics of the 1st Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	7	7	6	20
Percentage	35%	35%	30%	100%

Table (17) shows that setting goals and assessing their learning process are not employed by seven students (35%). This might be that these students may not consider goal setting and self-monitoring to be essential elements impacting their classroom involvement and self-regulation. In addition, seven students (35%) mentioned that they use setting objectives and monitoring their learning process. This indicates that these students understand the importance of goal setting and self-monitoring in boosting engagement and self-regulation. They may purposefully employ these strategies to improve their academic performance and learning experience.

Item 2: “I embrace challenges and learn from mistakes.”

This question seeks to determine whether students see mistakes as useful feedback and opportunities for progress.

Table 18:

Descriptive Statistics of the 2nd Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	1	9	10	20
Percentage	5%	45%	50%	100%

The majority of students (19 out of 20; 95%) believe they are related (45%) to or highly related (50%) to the statement "I embrace challenges and learn from mistakes." This shows that these students have positive attitudes towards obstacles and failures. They also believe in the importance of learning from setbacks and mistakes. They are additionally open to regard problems as opportunities for progress and to take on difficult tasks.

It is worth mentioning, however, that one student answered "Not related." This suggests that at least one student has a different viewpoint or does not completely accept challenges and learning from mistakes.

Item 3: "I try to solve complex activities through using multiple strategies and considering various approaches to arrive at a solution and think outside the box."

This question seeks to assess whether students are meta-cognitively aware of their own thinking process and have the ability to monitor and manage their problem-solving strategies.

Table 19:

Descriptive Statistics of the 3rd Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not Not related	Related	Strongly Related	Total
Frequency	1	5	9	5	20
Percentage	5%	25%	45%	25%	100%

One of the 20 university students who answered the questionnaire answered "strongly not related," indicating that he does not perceive an obvious connection between his self-regulation and engaging in complicated problem-solving activities. Plus, 5 students selected "not related," implying that they find a weak or restricted relationship between their self-regulation and participating in complicated tasks. As well, 9 students chose "related," and 5 students chose "strongly related," indicating, respectively, a moderate level and a strong belief in the relationship between their self-regulation and their ability to effectively solve complex activities through multiple strategies and thinking outside the box.

Item 4: "I apply learning to real-world problems and situations."

This inquiry aims at eliciting to what extent EFL master students are actively connecting and transferring knowledge and skills gained in an educational setting to practical and authentic real-world scenarios

Table 20:

Descriptive Statistics of the 4th Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	3	11	6	20
Percentage	15%	55%	30%	100%

Three students (15%) answered that they see little or no connection between their study and real-world challenges and circumstances. This shows that there may be a perceived gap or disconnect between what they learn in the classroom and how they apply it in practical circumstances for these pupils. Eleven students (55% of the sample) selected the "Related" option, indicating that they see a link between their learning and real-world problems and circumstances. They recognize, to a lesser level, the relevance and applicability of their learning to real-world events. Six students (30% of the sample) chose the "Strongly Related" option, indicating that they have a strong confidence that their learning is immediately practical and transferable to real-world problems and circumstances.

Item 5: "I use a variety of sources and synthesize information to draw meaningful conclusions while conducting a research project."

This question attempts to discover whether or not EFL master students are seeking out multiple sources, and critically evaluating and synthesizing the information to draw meaningful conclusions.

Table 21:

Descriptive Statistics of the 5th Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not	Not related	Related	Strongly Related	Total
Frequency	1		2	11	6	20
Percentage	5%		10%	55%	30%	100%

Table (21) represents that only one student (5%) chose the “strongly not related” option while two others (10%) chose “not related”. However, a total number of 11 students out of 20 (55%) found themselves related to this case including 6 others who highlight a strong relevance to the case provided.

In fact, 6 students selected "strongly related" which implies that there is a considerable part of the student population who firmly believes in the importance of utilizing a range of sources and synthesizing material in research projects to draw relevant findings. Those learners are likely to recognize the importance of thorough investigation and recognize that synthesizing knowledge leads to more educated and well-rounded conclusions.

Item 6: “I hypothesize about potential information and points and make predictions based on prior knowledge when dealing with a new lecture”.

This inquiry tries to explore whether or not EFL master students are using predictive learning strategy. This strategy involves actively engaging with new information by forming

hypotheses or predictions based on prior knowledge and experiences. In other words, cognitive skills are a fundamental component of this strategy.

Table 22:

Descriptive Statistics of the 6th Item of Section Two of the Students' Questionnaire.

Scale	Strongly not related	Not related	Related	Strongly Related	Total
Frequency	1	2	12	5	20
Percentage	5%	10%	60%	25%	100%

The interpretation of the results reveals that the majority of students perceive a connection between hypothesizing, making predictions, and utilizing prior knowledge when dealing with a new lecture. Specifically, 17 out of 20 students (85%) indicated varying degrees of relevance to this current case, in which 12 students are related and other 5 ones are strongly related, indicating that they engage in the described practice to some extent. Though,

By synthesizing the results, it becomes evident that the practice of hypothesizing, making predictions, and drawing upon prior knowledge when approaching a new lecture is seen as meaningful by the majority of the participants. This finding aligns with the notion that using prior knowledge and making predictions can contribute to active learning and comprehension during the learning process.

Item 7: “I participate actively in class discussions, and raise my hands to answer questions.”

We intended through this question to investigate whether or not EFL master students are actively engaged in classroom discussion

Table 23:

Descriptive Statistics of the 7th Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not Not related	Related	Strongly Related	Total
Frequency	1	6	7	6	20
Percentage	5%	30%	35%	30%	100%

On one part, table (23) demonstrates that only one student's response was "strongly not related", and other students' responses were "not related". On the other part, 7 students' responses were "related" and 6 other students' responses were "strongly related". Hence, a total of 13 out of 20 students (65%) indicated some level of relevance between the given case and their own experiences or perceptions. This suggests that a majority of the participants recognize the significance of actively participating and engaging in class discussions.

Item 8: "I follow classroom rules and expectations, such as: respecting others' opinions, arriving on time".

The objective of this question is to discover whether or not EFL master students are in compliance with rules and expectations.

Table 24:

Descriptive Statistics of the 8th Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	1	8	11	20
Percentage	5%	40%	55%	100%

Table (24) shows that the majority of students (11 out of 20; 55%) selected "strongly related" for this scenario, demonstrating a significant link between following classroom rules and standards, such as respecting others' perspectives and being on time. This shows that a sizable proportion of participants value these behaviors in sustaining a positive learning environment. Additionally, 8 other students selected the "related" option for this case. Nevertheless, it is worth noting that one student out of twenty (5%) selected a response that indicates a lower level of relevance ("not related"). This could be due to a variety of factors, this can possibly be due to some negative attitudes towards the course or the main field, both of which have a detrimental impact on the students' academic path.

Item 9: "I use technology, appropriately and responsibly in the classroom, as a tool to support the learning process, for example using a phone to take notes in an organized e-note sheet."

The primary focus of this question is to know whether or not EFL master students integrate technology into their English learning process.

Table 25:

Descriptive Statistics of the 9th Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	4	7	9	20
Percentage	20%	35%	45%	100%

As it is shown in table (25), a substantial number of students (9 out of 20; 45%) selected "strongly related" for this particular case, demonstrating a significant link between using technology appropriately and responsibly in the classroom as a tool to help the learning process. Other 7 students selected the "related" option for this case too. It suggests that a sizable proportion of participants recognize the importance and utility of using technology in an effective and responsible manner to enhance their learning experience. In spite of that, 4 students (20%) selected the "not related" option. The reason behind their responses could be due to their inability to adequately control themselves while using cell phones or their personal computers during learning.

Item 10: "I help classmates with a difficult assignment voluntarily and lead a group project."

The goal of this question is to ascertain whether or not EFL master students prefer and are involved in collaborative learning.

Table 26:

Descriptive Statistics of the 10th Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not Not related	Related	Strongly Related	Total
Frequency	1	4	12	3	20
Percentage	5%	20%	60%	15%	100%

Table (26) represents students' responses to this case. It is noticeable that the majority of students (12 out of 20; 60%) answered "related" for this case, demonstrating a strong link between utilizing technology appropriately and responsibly in the classroom as a tool to assist learning. Moreover, 3 other students selected the "strongly related" option for this case. This indicates that the majority of participants' value and recognize the importance of using technology in an effective and responsible manner to enhance their learning experience. Nonetheless, it is worth mentioning that just a few students (5 out of 20; 25%) selected replies suggesting a lower level of relevance ("strongly not related" or "not related"). Individual differences and types of personalities can affect their decision on being an effective part of a collaborative work. That is to say, introverted students most likely prefer not to engage in group work; rather, they do it individually.

Item 11: "I Share personal experiences and insights in oral discussions, and actively listen to others' perspectives."

The intention behind this question is to uncover whether or not EFL master students are actively participating in classroom discussions.

Table 27:

Descriptive Statistics of the 11th Item of Section Two of the Students' Questionnaire.

Scale	Strongly not related	Not related	Related	Strongly Related	Total
Frequency	2	6	8	4	20
Percentage	10%	30%	40%	20%	100%

Table (27) shows that 2 students (10%) are strongly not related to this case; at the same time, 6 students (30%) are also not related to it. The majority of students (8 out of 20; 40%) selected "related" for this case, including 4 other students (20%) who selected the "strongly related" option. These results demonstrate an adequate degree of connection between revealing personal experiences and ideas in oral talks and attentively listening to other views expressed by others. This indicates that a sizable number of participants recognize the significance and value of engaging in meaningful dialogues and being open to differing points of view.

Item 12: "I feel a sense of responsibility and ownership while doing class projects."

The ultimate goal of this question is to know whether or not EFL master students are self-reliant and accountable learners.

Table 28:

Descriptive Statistics of the 12th Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Total
Frequency	1	9	10	20
Percentage	5%	45%	50%	100%

Table (28) shows that only one student (5%) selected the “not related” option. While this is a minority response, it represents an individual who does not perceive a strong sense of responsibility and ownership in class projects. On the other hand, the majority of students (10 out of 20; 50%) selected "strongly related" for this case, in addition to 9 others who selected the “Related” option. These results show that they have a strong sense of responsibility and ownership when working on class projects. This reveals that a considerable proportion of participants have a strong connection to feeling accountable for their class projects and taking ownership of them.

Item 13: “I build relationships with peers and work together towards a common goal.”

This question intends to reveal whether or not EFL master students are open to social relationships with their classmates.

Table 29:

Descriptive Statistics of the 13th Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not	Not related	Related	Strongly Related	Total
Frequency	1		3	10	6	20
Percentage	5%		15%	50%	30%	100%

According to table (29), four students, one of them is very unrelated (5%) and 3 others are unrelated (15%), showed a lower level of attachment to developing relationships and working together with classmates. These comments represent a minority viewpoint. Regardless, the majority of students (10 out of 20; 50%) selected "related" for this case, and 6 students selected the "strongly related" option. These results indicate that they perceive a level of connections with classmates and cooperation towards a common objective. This indicates that a considerable number of participants' value collaboration and teamwork in their learning process.

Item 14: "I seek support from the teacher or classmates when things get rough in the class."

We attempted through this question to know whether or not EFL students seek support from teachers and classmates.

Table 30:

Descriptive Statistics of the 14th Item of Section Two of the Students' Questionnaire.

Scale	Strongly related	not Not related	Related	Strongly Related	Total
Frequency	2	3	10	5	20
Percentage	10%	15%	50%	25%	100%

Table (30) indicates that five students (25%), 2 students highly unrelated and 3 students unrelated, reported a lower level of willingness to seek help from the teacher or peers. These comments represent a minority viewpoint. Those students might prefer to depend only on themselves due to their high level of self-reliance. Besides, the majority of students (10 out of 20; 50%) chose "related" for the given situation, and other 5 students (25%) selected the "strongly related" option. Thus, these results indicate that those students seek help from their teacher or classmates when they face problems or difficulties in class. This implies that a sizable number of participants recognize the importance of seeking aid and depending on others in such situations.

Item 15: "I build positive relationships with peers and the teacher by showing empathy, listening actively, and respecting differences."

This inquiry aims at highlighting whether or not EFL master students are using interpersonal learning strategies while learning.

Table 31:

Descriptive Statistics of the 15th Item of Section Two of the Students' Questionnaire.

Scale	Not related	Related	Strongly Related	Empty answer	Total
Frequency	1	11	7	1	20
Percentage	5%	55%	35%	5%	100%

Table (31) demonstrates that only one student selected "not related" to the statement, indicating that he does not see himself as actively establishing meaningful relationships through empathy, active listening, and respect for diversity. That could be the result of a variety of issues this student is dealing with, such as his personality type. As a result, introverts struggle to build social connections with peers.

Section 4: Correlation between Self-Regulation and Student Engagement

Item 1: When you control your thoughts and feelings in the classroom, what do you notice in terms of your classroom engagement?

The purpose behind this question is to reveal whether or not cognitive and emotional regulation affects students' classroom engagement.

Table 32:

Descriptive Statistics of the 1st Item of Section three of the Students' Questionnaire.

Scale	More engagement	Less engagement	No change is noticed	Total
Frequency	18	1	1	20
Percentage	90%	5%	5%	100%

As shown in table (32) when students exercise control over their thoughts and feelings, the majority of them (18 out of 20; 80%) reported higher levels of classroom involvement. This research implies a link between self-regulation and classroom involvement. When students can properly regulate their thoughts and emotions, they can raise their focus, motivation, and active participation, which improves their overall engagement in the learning process.

The responses of the students who chose "less engagement" and "no change is noticed" are notable because they reveal insights into individual differences as well as the complexities of the relationship between self-regulation and classroom participation. These findings emphasize the necessity of taking into account individual differences and knowing that not all students will respond the same way to self-regulation techniques.

Item 2: How would you engage in the classroom if you appropriately manage your thoughts and feelings?

The above mentioned inquiry intends to uncover the strategies used by students to engage in different classroom activities when regulating their thoughts and emotions. The students' replies about how they would engage in the classroom if they could manage their thoughts and feelings appropriately indicate numerous crucial insights. To begin with, successful cognitive and emotional regulation are linked to greater focus and active engagement, demonstrating that students understand the importance of managing their thoughts and emotions in being attentive and engaged in learning activities. Second, cognitive and emotional regulation promotes increased engagement and interaction in the classroom, fostering an environment in which students feel comfortable expressing their opinions, asking questions, and participating in debates. Furthermore, students recognize that self-regulation improves understanding and expression, allowing them to adequately organize their thoughts, explain their ideas, and comprehend the subject being taught. Furthermore, self-regulation develops beneficial behaviors and attitudes, such as respect for others and active listening, which fosters a cooperative and empathic classroom culture. Finally, students conceive self-regulation as a source of confidence and organization, which boosts their overall involvement. These findings highlight the need of developing self-regulation abilities in order to improve students' classroom engagement, resulting in a more meaningful and fulfilling learning experience.

Item 3: According to you, does regulating your behaviors within classroom contexts have an influence on your classroom engagement? If yes, how?

The main aim of this question is to highlight whether or not behavioral regulation impacts students' classroom engagement. The students' replies addressing the impact of regulating their behaviors in classroom contexts on their classroom involvement highlight several crucial features. To begin, it is clear that participants consider behavioral regulation to have a beneficial impact on classroom participation. They recognize that being behaviorally

managed improves their interactive involvement by allowing them to actively participate in the learning process and contribute to class discussions. Furthermore, behavioral regulation is viewed as a facilitator of critical thinking, implying that when students control their behaviors, they are better equipped to think critically and analyze information efficiently. Further, participants understand that behavioral management leads to enhanced focus, which allows them to produce precise and acceptable responses, which can add to their overall academic accomplishments. Furthermore, being behaviorally disciplined is linked to receiving respect from others, emphasizing the social aspect of classroom participation. These findings emphasize the importance of behavioral regulation in generating positive classroom experiences and encouraging students' active and meaningful engagement.

Item 4: Do you think that there is a relationship between -your - self-regulation and -your- classroom engagement? Would you please explain how?

This question is designed mainly to ascertain if there is a relationship between students' self-regulation and their classroom engagement. In fact, students' replies show a significant belief in the favorable association between self-regulation and classroom participation. According to their explanations, self-regulation is important in many facets of their engagement. To begin, they emphasize that self-regulation leads to improved performance, implying that when they effectively govern themselves, they can obtain equivalent academic accomplishments. On top of that, the students recognize that their level of involvement is strongly related to their level of self-regulation, implying that the more they regulate themselves, the more actively they participate and involve themselves in classroom activities. They also remark that self-regulation allows them to overcome unpleasant ideas and feelings, thereby establishing an environment conducive to productive involvement. The students go on to emphasize the importance of self-regulation beyond learning, emphasizing its applicability in other parts of life. They see self-regulation as a motivator for classroom participation because

it allows them to keep attention, be serious, and gain a firm comprehension of the subject matter. Finally, the students contend that self-regulation leads to comfort, organization, clarity of thought, and longer focus, all of which contribute to their improved classroom involvement. These findings highlight the critical importance of self-regulation in encouraging students' motivation, focus, and active participation, which leads to increased classroom engagement.

8.2. Results of Teachers' Interviews

Q1. What is your definition of students' classroom engagement?

The reason behind asking this question lies in highlighting EFL teachers' perceptions of EFL students' classroom engagement. Teacher 1 defined student classroom engagement (SCE) as the way in which students can participate within the class activities. She clarified that each student is going to participate with different strategies according to his personality. Hence, it is all about participation within classroom tasks and activities. Likewise, students' personalities play a significant role in distinguishing students' participation. On the other hand, teacher 2 affirmed that SCE is "motivation", "attendance", and "feedback". She explained that if the student attends his sessions consistently, and does all his assignments and submits them on time that means that this student is motivated enough to be engaged within the classroom context. Besides that, even the feedback that the student builds using teachers' feedback is a critical sign that indicates students' motivation and engagement. Similarly, teacher 4 shared the same definition that has been highlighted by teacher 2. Thus, teacher 4 stated that SCE can be noticed through different behaviors such as students' attendance, their motivation to participate in classroom discussions and activities. However, teacher 3 described SCE as an umbrella term which involves many behaviors in class. He listed a number of fundamental elements that form an effective classroom engagement. Participation, commitments, interaction

with peers and with the teachers, attendance, regular preparation, enthusiasm, and motivation are critical concepts that are included in the sphere of SCE. Thus, different notions of classroom engagement can be created by combining numerous components. Essentially, SCE is based on encouraging students to actively participate in class activities and assignments. As for teacher 5, he outlined that: "Classroom engagement is the degree of attention, curiosity, interest, optimism, and passion that students show when they are learning or being taught, which extends to the level of their active participation in class activities". In broad terms, students' classroom engagement can be defined as the consequence of any stimulus that is pushing students to be more successful and active in academic context

Q2. To what extent do you think that student classroom engagement is important? Why?

This question aims at eliciting to what extent SCE is important. The five interviewed teachers asserted the importance of SCE. Teacher 1 believed that it has a positive effect on students' performance since an engagement that comes from one student is considered as a significant motive for all his classmates. Besides, teacher 2 marked out that SCE assists and informs teachers in determining whether, and to what extent the lectures they teach are effectively conveyed to students. They might discover this via their students' responses and sometimes through their consistent attendance. Further, teacher 3 viewed SCE as the foundation of the language classroom. In a nutshell, it is regarded as an essential requirement for enhanced academic achievement. He added that students who do not engage have less opportunity of promoting their proficiency and other interpersonal skills such as collaborative work, association, and even higher order skills such as analysis and reflection. As a result, a learner who is not actively involved in the classroom misses the chance to learn effectively. Furthermore, teacher 4 advocated the importance of SCE. He claimed that it is essential and

vital since it is what motivates students to perform at a high level. He also mentioned its direct impact on student performance and also on improving their capabilities and how it helps developing performance in any field, not just teaching foreign languages. As a result, it is critical, particularly in education. In the same vein, teacher 5 claimed the importance of SCE. Further, he explained that it has a positive impact on students' academic performance, motivation, and well-being.

Q3. According to you, why do some students more likely to engage in the classroom than some others?

It is widely known that there are some students who are more engaged than the others. For that particular reason, teachers were asked to highlight the reasons behind the diversity of the levels of SCE; hence, table 32 accounts for this requirement about EFL learners enrolled at Biskra University.

Table 33:

Reasons Behind the Diversity of the Levels of Students Classroom Engagement.

Teacher	Response
Teacher 1	Personality differences. Learning preferences.
Teacher 2	Interest and motivation. Respect and valuability of study. Fear of failure.
Teacher 3	Learning style and personality. Teachers and partnership's influence. The nature of the course.
Teacher 4	The nature of the specialty; Students' like and dislike of the specialty. Teaching methods and teacher influence. Disengagement: social interaction and boredom.
Teacher 5	Prior knowledge. and expectations. Motivation and interest. Self-efficacy. Goals, Values and Beliefs. Emotions. Feedback. Support, and Social Interactions.

As it demonstrated in table (33), teacher 1 explained that the reason behind the multiplicity levels of participation and involvement displayed by students in the classroom lies in students' personality differences and learning preferences. She explained that there are students who prefer writing rather than speaking; consequently, we find them more engaged in written tasks than oral activities. In addition to that, teacher 2 addressed the various levels of student involvement in the classroom, indicating that students appreciate what they do, which implies they enjoy learning and are driven towards it. She also demonstrated that some students still believe that studying is important and beneficial. Teacher 2 also stated that some other students are afraid of failing the class. As a result, they are unable to fully participate in class activities. Teacher 3 also affirmed that the heterogeneity of the levels of SCE is caused by some external and internal factors. Hence, external factors might include teachers' influence. He explained that if teachers are not motivated during the presentation of their lectures, we cannot expect students to be motivated to learn, because in that case students are getting affected negatively by their unmotivated teachers. The same goes with peer relationships as in certain circumstances, peers are not helpful enough. Accordingly, they do not encourage their partners to be active and engage successfully in the classroom; as a result, their classroom involvement suffers. Besides that, how students engage in the classroom is determined by the nature of the course. Because contact is not always essential. Sometimes the courses are purely theoretically based reflective classes. As a result, instead of displaying how interactive and engaged they are with the course, students must just reflect on it. On the other hand, internal factors deal with the students themselves. Anxiety, self-efficacy, personality, and learning style are among these factors highlighted by Teacher 3. Meanwhile, teacher 4 mentioned two other significant factors, namely the choice of the specialty itself and teachers' teaching methods. He further explained that if students do not choose the specialty they want, this will directly affect their academic learning journey starting from their engagement in the classroom. In addition, if the teaching

methods and strategies used within classroom context are not diversified according to the nature of the courses, modules, and the students' levels, students will be bored. Thus, they will not be active learners.

On the other hand, teacher 5 asserted that the reason for the wide range of student classroom involvement is due to a variety of factors that influence how students interpret the educational atmosphere, how they react to the content and instructors, and how they engage in instructional activities. These variables encompass previous experience, motivation, desire, self-efficacy, objectives, morals, expectations, feelings, input, assistance and interactions with others.

Q4. How do you manage to foster your students' engagement in the classroom?

SCE is a critical component of a successful learning journey. As a result, this question seeks to shed light on the strategies and techniques that teachers employ in order to increase students' engagement. Teacher 1 declared that immediate oral feedback was to be found as a critical technique for an improved engagement. She noted that teachers' support and feedback are also an extra important technique for satisfactory SCE. Moreover, teacher 2 replied that she uses two main methods. Actually, the first teaching method is about being disciplined with them during the first semester in terms of marks, attendance, and assignments. Hence, students who perform accurately will be rewarded; whereas, those who do not will be punished. However, during the second semester she goes easily with them since they get used to the discipline and become mature in terms of being disciplined students who value studying. On the other hand, the second pedagogical technique is that she focuses on the content of the courses. Thus, she summarizes the lectures and simplifies the content. Accordingly, students can receive the educational content and respond in an appropriate way adequately. Furthermore, teacher 2 emphasized on timing claiming that students feel bored to stay for the whole one hour and a half in the classroom. In light of this, she gives them the freedom and

space to take breaks so that they do not be stressed and get bored. In the same line, teacher 3 highlighted many tactics such as requesting collaborative or peer work, diversifying assignments, and disrupting the classroom routine by introducing new items. He also noted that simple acts such as being easily accessible to learners and having a private dialogue to figure out what is lacking or wrong are able to improve their classroom engagement. Furthermore, he stressed the teacher's role as a mentor to his students, allowing him to guide them through the process by asking them to do or act differently in order to participate in the classroom. In fact, teacher 4 went in the same line with teacher 3 in terms of varying teaching strategies and bringing new things to discuss in the classroom. Hence, he stated that it is usually preferable to bring something they will require in the future merely to motivate them further.

Teacher 4 and teacher 5 stated that identifying the major objectives and particular targets of each course aids students in properly comprehending what they will study. As a result, they may set goals accordingly. As an addition, creating a learning environment that stimulates and engages learners is one of the most crucial components of teaching, as mentioned by Teacher 5. He proposed several strategies for achieving these goals, including: providing positive and supportive feedback; incorporating relevant and authentic examples and materials; emphasizing classroom discussion and collaboration; and facilitating student-led activities and presentations.

Overall, it is about diversifying teaching approaches, increasing student enthusiasm, and providing help and positive reinforcement.

Q5. What are the main aspects of classroom engagement that appear on your students (how do they show their engagement)?

The major purpose of this question is to elicit teachers' experiences on how their students reveal their engagement. For this reason, teacher 1 responded that she knows that their students are engaged through their questions and response to feedback. Whereas, teacher 2

listed two other aspects of SCE, namely, students' attendance and their cooperation. In line with this, teacher 3 mentioned that giving assignments in due time, asking after-class questions, and appearing at ease with teammates while working together are all significant markers of student engagement. Similarly, Teacher 4 indicated active participation and students' enthusiasm as indicators of SCE. He also claimed that accomplishing something without being requested is the most significant aspect of demonstrating interest through educational behavior. In addition to students' attention, participation, and motivation, teacher 5 stressed students' emotion in terms of their self-efficacy and self-confidence as critical signs of SCE.

From the above mentioned responses, teachers' perceptions on how student engagement can be revealed are different. The responses include students' enthusiastic involvement, motivation, posing questions, feedback reception and adaptation, attendance, undertaking coursework and accomplishing academic requirements.

Q6. a. In which activities do students seem more engaged?

b. In which activities do you notice less engagement?

c. How can you explain that?

This question is divided into three parts. The first part attempts to uncover the activities where more engagement is noticeable. Whereas, the second part endeavors to highlight the activities where less engagement is remarkable. Thus, the third part of the question is for teachers' explanations for such diversity in terms of classroom engagement levels among students. Hence, this question intends to determine what factors that may affect SCE. In fact, teacher 1,2,3, and 4 pointed out the like and dislike of the topic, besides the nature of the module and learning preferences, while some prefer to write and others to speak. Hence, the nature of the module has an important role in affecting the learner. Teacher 1 added that less engagement is noticed in difficult topics, when students are uninterested. Likewise, teacher 2 argued that no difference is noticeable between SCE in written and oral activities, yet her students prefer

to work individually rather than in group. Further, she said that less engagement is noticeable when students are not in the mood (i.e. psychologically exhausted) due to various factors such as: family or friendship issues, sickness etc. In the same manner, teacher 3 asserted that personality affects SCE. That is, extroverts engage more when they work in groups whereas introverts engage more when they work individually. Besides, less engagement is marked when students find no interest in the tasks or the topic discussed, or even when the teacher is not sufficiently motivated in presenting his lectures. The mentioned point is supported by teacher 5 too. Furthermore, there are external factors hindering SCE, such as psychological problems that interfere with having less involvement and over which teachers have no control over them. Furthermore, certain activities do not genuinely stimulate interactivity; thus, these activities do not encourage learners to interact. Students do not demonstrate great or extraordinary engagement in these activities.

Teacher 4 noted that when students do not feel obligated to participate in the activity, they do it well. He emphasized project-based activities and scenario-based tasks are other tasks where great engagement is evident. As a demonstration, in the ESP course, constructing scenarios is encouraged so that each student has a scenario to build in order to locate the specific competencies to develop at the end. On the other hand, Teacher 4 proposed that activities centered solely on grammar result in lower levels of student engagement.

Teacher 5 recommended a variety of practices that would increase student engagement, such as employing collaborative instructional tools like games or quizzes. Furthermore, creating clear goals, and integrating many disciplines into the curriculum was also mentioned as a significant technique that increases SCE. Additionally, organizing class competitions and using language and linguistic games help students embrace English and improve their skills. Thus, these activities can help students have fun, feel connected, think critically and learn effectively. Nevertheless, the difficulty level, usefulness of the content, feedback, and

interaction are all possible considerations that may hinder effective SCE. He explained that Students may lose interest or become dissatisfied if an activity is too easy or too difficult. They may not recognize the value or purpose of an activity if it is not tied to the learning objectives or the real-world context. They even may not know how to grow or progress if an activity does not provide timely and useful feedback. Following that, students may feel alienated or bored if an activity does not entail social interaction or collaboration. However, some possible factors are the difficulty level, the relevance, the feedback, and the interaction. For example, if an activity is too easy or too hard, students may lose interest or feel frustrated. If an activity is not related to the learning objectives or the real-world context, students may not see the value or the purpose. If an activity does not provide timely and meaningful feedback, students may not know how to improve or progress. If an activity does not involve social interaction or collaboration, students may feel isolated or bored.

We conclude that, to enhance student engagement, teachers need to consider the individual differences and needs of their students and design instruction that is relevant, meaningful, challenging, supportive, and interactive.

Q7. Do you think that self-regulation can determine student engagement? (i.e. Can student self-regulation affect student's classroom engagement?)

Could you explain how?

We attempted through this question to find out if there is a direct impact of students' self-regulation on SCE. Respectively, the interviewed teachers answered this question by initially responding with "of course", "to some extent, 80% yes", "in many ways yes", "yeah of course", and "Self-regulation and student engagement relate closely".

As a matter of fact, teacher 1 ascertained that due to the use of specific themes to debate, consistent revision with peers will affect their classroom participation. Correspondingly, teacher 2 asserted that SCE can reflect and indicate the extent of their self-regulation. She explained that if someone is regulated, which includes being disciplined, doing homework, attending, in other words being responsible, and interested in the classroom, he is eventually engaged in the classroom. In a different vein, this does not mean that students are not self-regulated if they are not engaged in the classroom. There are times when students are not engaged in class but are self-regulating, as indicated by his personality and thought process in his written response. As such, other characteristics, in addition to classroom participation, show that these learners seem self-regulated.

In the same way, teacher 3 stated that learners who are aware of their distinct learning styles are also aware of their learning preferences, how their cognitive abilities can be revealed, and how they can use their learning abilities. As a result, they understand how to control their behavior, cognition, and emotions. This claim was also supported by teacher 4 also. Likewise, teacher 3 determined that self-regulation should be an accurate representation of self-awareness, and that students should be aware of their own learning methods, cognitive abilities, and capacities. Eventually, the two variables form a strong connection.

According to teacher4, self-regulation is a 'heavy concept' to grasp. He stated that students who are self-regulated and cope with their abilities, emotions, and background will be more engaged. Regardless, he questioned the sources of self-regulation, wondering if it is a natural skill or a learned skill, or even if it can be taught. These questions ought to be intriguing to all didactics researchers. He went on arguing that mastering such soft skills (such as self-regulation) is beneficial yet difficult.

Similarly, self-regulation and student engagement, according to Teacher 5, are interconnected because self-regulated students are more involved in their learning activities, and more engaged students develop higher self-regulation skills. Ultimately, given that it determines how students approach, manage, and evaluate their learning activities, self-regulation has an immense effect on student engagement. To offer a more thorough explanation, teacher 5 ascertained that Self-regulation can influence students' motivation, learning strategies, and academic achievement. In other words, influencing their classroom engagement. He continued on claiming that self-regulated students are better equipped to set realistic and challenging goals, use effective and adaptable learning techniques, seek feedback and aid when needed, and remain persistent in the face of problems. Overall, these abilities and attitudes assist in improving students' interest, involvement, and achievement in the classroom.

Q8. According to you, how can we define self-regulation?

This question aims at discovering teachers' perceptions of students' self-regulation. Consequently, this question brings together precise definitions to this notion (i.e. self-regulation).

According to teacher 1 self-regulation is defined as 'taking and organizing the freedom given to students at the university in the appropriate way'. She further explained her definition in detail by comparing pupils with university learners. Thus, at primary, middle, and high schools, pupils are more controlled by their parents, teachers, and administration. However, university students are mature and old enough to control themselves on their own. During this phase, students are free to attend, do their assignments, and participate in classroom activities. In other words, it revolves around students' autonomy as well as responsibility for their freedoms. In an equivalent manner, it is preferable for students to use the freedom granted to

them wisely. Yet, what we face in our daily lives, as the teacher 1 stated, is that students often employ this freedom inappropriately.

Alternatively, teacher 2 believed that students' self-regulation is about self-respect, teacher respect, the academic settings respect, and time respect. Therefore, it is about respecting all what has relationship with the academic atmosphere

Instead, Teacher 3 described Self-regulation as 'the ability to determine what works best for me in various areas of learning'. For example, when a learner is able to manage his emotions in the face of anxiousness, this means that he is already aware of his feelings and what drives him to feel the way he does. In other words, if someone has adequate self-regulation, he may try to cope with his anxiety in certain instances, such as when trying to achieve his goals and overcoming obstacles by employing techniques that suit him best. At the end, teacher 3 argued that self-regulation is all about understanding yourself and the ability to cope with different situations that leads students to better learning. To recapitulate, being aware about the adequate learning strategies and methods that significantly improve academic performance including the appropriate way of coping with obstacles within academic context is what we called students self-regulation.

In line with this, teacher 4 argued that self-regulation is a psychological phenomenon that is difficult to quantify and demonstrate. He further explained that some students have quite equal cognitive abilities, backgrounds, and so on, yet they demonstrate varying levels of self-regulation. Owing to that, we cannot maintain that this one managed or mastered self-regulation whilst the other did not. Finally, it is quite difficult to discover a concise and explicit description for that critical term. Likewise, teacher 4 thought that the concepts related to self-regulation are all related to management; therefore, it has to do basically with 'management'. From a

conceptual standpoint, students who can manage everything around them are those who possess considerable self-regulation.

Moreover, teacher 5 raised a vital definition. Self-regulation, outlined by Teacher 5, is ‘the ability to monitor and manage one's own thoughts, emotions, and behaviors in order to attain personal and social goals’. Setting reasonable and attainable goals, planning and carrying out activities, analyzing and adjusting approaches, and reflecting on outcomes are all key aspects of self-regulation. As this indicates, self-regulation is not critical for learning only; rather, in a variety of life areas.

Q9. Does the situation where the student is (a. cognitively regulated, b. emotionally regulated, c. behaviorally regulated) can affect his classroom engagement? please explain each situation according to your perspectives.

This question intends to affirm whether the states of the students being cognitively, emotionally, and behaviorally regulated influence their classroom engagement or not. Subsequently, the five interviewed teachers asserted the influence of these situations on SCE and provided detailed responses to the current question. All of them shared the same idea that adequate self-regulation leads to effective SCE; hence, it causes academic success.

Teacher 5 at the first place defined cognitive, emotional, and behavioral regulation then he provided us with examples. According to teacher 5, cognitive regulation refers to the ability to plan, monitor, and assess one's own learning processes. He added that emotional regulation refers to the ability to correctly regulate and express one's own emotions. Further, behavior regulation is the ability to follow the rules, norms, and expectations of the classroom context. Thus, a student who can focus on the subject at hand, deal with issues and disappointments, and connect successfully with peers and teachers is more likely to participate in classroom activities.

Teachers answers can be summarized as follows:

In case the students are cognitively regulated, students' previous linguistic knowledge about the course or the module would pave the way for effective classroom engagement. As an outcome, it may facilitate matters for the learner to be engaged easily. To be more precise, an interactive learner who uses soft skills, including questioning, critical thinking, and synthesizing feedback, is the core component of an active classroom.

On one part, emotional control is linked to the teacher, classmates, and course effect, as well as the concept of 'respect'. In a nutshell, the right selection of teaching style and methodology shapes the learner's satisfaction and engagement with the module. Meanwhile, respect is another essential term that illustrates emotional regulation in students. It means that learners respect classroom rules, teachers, and peers; as a side effect, they obtain reciprocal respect from teachers and peers. Plus, relationships relied primarily on respect are healthy and durable, which aids in the creation of collaborative social interaction within educational situations. On the other part, behavioral regulation, the interviewed teachers emphasized that if a student's acts exhibit no relevance to the classroom, he will negatively impact the classroom, the surrounding environment, and thus his peers in addition to his scores. That means, students need to attend classes, show respect, participate, hand assignments in due time and work hard on developing their skills to achieve academic goals.

To put it simply, if the students are aware of these types of regulations, they will be able to participate effectively in the class. So, students are required to comprehend how they think and feel in various situations, particularly when their fears and anxieties provoke their behaviors. Consequently, they can regulate themselves as they cope with such difficult situations. In a nutshell, understanding how students think and feel clears the way for appropriate behavior.

Certainly, some behaviors are spontaneous, while others are planned and studied. Yet, the self-regulated student remains quite aware of his actions and reactions. That is, some reactions must be managed or they will have serious consequences. In conclusion, the students who can manage their reactions will eventually be able to regulate their feelings and thoughts.

Q10. Do you think that there is any kind of relationship between self-regulation and student engagement?

Our aim with this question was to ascertain if there is a relationship between students' self-regulation and their classroom engagement. Subsequently, the five interviewed teachers confirmed the positive relationship between the two studies variables (i.e. students' self-regulation and their classroom engagement). The interviewees showed no hesitation in answering this question by initially responding with "they work in a parallel way whether positively or negatively", "yes to some extent", "I admit that there is a relationship between the two" and "Yeah, student self -regulation directly affects their engagement", and "self-regulation and student engagement are positively related".

9. Synthesis of the findings

The questionnaire results revealed significant findings about the relationship between students' self-regulation and classroom engagement. The majority of participants reported a strong belief in the value of learning English and demonstrated a high degree of cognitive commitment throughout the learning process, keeping attentive and engaged. This demonstrates that these learners are considerably motivated and committed to understanding and utilizing the material. Plus, the majority of respondents said they used critical thinking skills, generative learning methodologies, and reflective practices to improve their learning experiences. Thus, these findings imply that learners who practice self-regulation skills are

more likely to be engaged in the classroom. The findings also provided light on the students' capacity to track their progress, create goals, and overcome obstacles. The majority of participants took a proactive approach to their learning, regularly monitoring and reviewing their progress towards self-set goals. On top of that, a considerable number of students displayed autonomy, accountability, and a determination to persevere in the face of setbacks or obstacles faced along the road to success. This demonstrates the beneficial effect of self-regulation on students' motivation, perseverance, and goal-directed behaviors.

Likewise, the application of learning to real-world situations, as well as the use of cognitive techniques such as analyzing, synthesizing, and creative thinking, demonstrates the students' capacity to transfer knowledge and abilities to practical contexts. Simultaneously, the analysis also revealed differences in students' self-regulation practices and participation in specific learning behaviors. While the majority of students demonstrated positive behaviors such as keeping focused during lectures, actively participating in class discussions, integrating technology, and cooperating with peers, a smaller minority did not. A small number of participants, for example, struggled with substituting negative attitudes, seeking help in challenging situations, and employing interpersonal learning strategies. These findings imply that these students may benefit from further help and intervention to improve their self-regulation abilities and overall classroom participation.

In general, the questionnaire results show the positive correlation between students' self-regulation and classroom engagement. The majority of participants showed a strong commitment to their learning, actively engaged in various self-regulation practices, and reported higher levels of engagement as a result. These findings highlight the need of developing students' self-regulation skills in order to promote their motivation, active involvement, and overall success in the classroom, hence, in their academic journey.

In this vein, it was observed based on the analysis that almost all students use different self-regulation strategies such as: applying critical thinking skills, goal setting, goal orientation, metacognitive monitoring, self-reflection, and self-evaluation.

The findings, however, revealed the need for targeted guidance and assistance for students who struggle with certain aspects of self-regulation and classroom engagement. Educators can establish a conducive learning environment that enhances students' self-regulation and improves their level of engagement and learning outcomes by addressing these areas for development.

On the other hand, the results of the semi-structured interview with five university teachers shed light on the positive relationship between student self-regulation and classroom engagement. Classroom involvement was interpreted diversely by the teachers, some of them emphasizing participation in tasks and activities and others emphasizing motivation, attendance, and feedback. Regardless of their definitions, all teachers agreed on the significance of classroom participation. They emphasized the benefits to students' performance, academic accomplishment, motivation, well-being, and the development of interpersonal and advanced levels abilities. Further, the interviewed teachers noted personality characteristics, learning preferences, curiosity, motivation, fear of failure, teaching approaches, and prior knowledge while discussing the elements that influence students' engagement in the classroom. They also emphasized the importance of teachers and peers' relationships, the nature of the course and specialty, and social connections. In this vein, it was observed that increasing student involvement necessitates a variety of strategies. These strategies include immediate oral feedback, maintaining discipline and gradually easing it, simplifying curriculum,

combining collaborative and peer work, diversifying assignments, and introducing new aspects to disturb the classroom pattern.

Teachers noted a variety of elements of classroom engagement in their students, including passionate involvement, motivation, active exploration, feedback reception and adaptation, attendance, and completion of coursework. They also admitted that certain activities or themes may create more engagement than others. On top of that, we noticed that there are external variables such as psychological difficulties and a lack of interaction in some activities that might be barriers to effective engagement.

10. Conclusion

Self-regulation is critical for increasing student classroom engagement. The examination of the students' questionnaire and the interviews with the teachers found that students who use self-regulation skills are more likely to engage in learning activities, connect effectively with their teachers and classmates, and achieve academic success. Moreover, student engagement and self-regulation are strongly related. As a result, self-regulation has a remarkable influence on student engagement since it influences how students approach, manage, and evaluate their learning tasks.

General Conclusion

Researchers' interest has been directed to the importance of self-regulation and also on students' academic achievements. Hence, this master dissertation intended to investigate the correlation between students' self-regulation and their classroom engagement, shedding light on their definitions, related theories, and their dimensions. What is more is that the current research work also uncovered valuable insights into the diverse self-regulation strategies employed by EFL master students. Moreover, it endeavored to highlight the effective strategies they employ to actively participate in classroom activities.

To achieve the study's aims, 20 EFL master one students and 5 university educators enrolled at Biskra University were chosen as the study's sample. The non-probability purposive sampling technique was used, and all participants were found to be available and accessible to be a part of this research study. The instruments for this current study were semi-structured questions for students and a semi-structured interview with teachers. As a result, the acquired data were analyzed using both quantitative and qualitative methods. Using frequency and percentage, descriptive statistics were used to analyze questionnaire results. Instead, the interviews were transcribed and thematically analyzed in order to find common themes and patterns in the teachers' responses. As a matter of fact, a validation phase was recognized as a vital step to be undertaken by the researcher as a determiner of the correctness and relevance of the instruments to ensure the reliability of both tools. Consequently, six instructors helped validate the teachers' interview and three teachers helped validate the students' questionnaire. To address the dissertation layout, three chapters were included. The first two chapters illustrated the two variables of the investigation (i.e. students' classroom engagement and self-regulation). Therefore, the first two chapters provide a theoretical overview of the two

concepts, including their definitions, related theories, and their dimensions. The third chapter focuses on the fieldwork and analysis of the results collected from the two data collection methods, as well as the limits and recommendations for future research investigations.

In light of the data, we conclude that master one students enrolled at Biskra university exhibit a wide range of self-regulation. The findings established a positive correlation between students' self-regulation and their classroom engagement. Thus, the more learners who use self-regulation skills and strategies, the more effectively they participate in classroom activities. Indeed, among EFL master one students, self-regulatory strategies include: critical thinking skills, generative learning strategies, reflective practices, self-monitoring, goal setting, attention control, mindfulness, positive self-talk, stress management, and consistency.

To sum up, our work reinforces previously published research on self-regulation, student engagement, psychology, and applied linguistics. In terms of the investigation's findings, our study serves as a foundation for future research in this field.

Limitations

Several limitations were encountered during the journey of this research work. First, time restrictions were a big constraint. Conducting a thorough investigation into the relationship between students' self-regulation, which is an abstract term, and classroom participation, requires meticulous data collecting, analysis, and interpretation. Second, the short timeframe for data collection and analysis may have influenced the breadth and depth of the study's conclusions. Furthermore, participant constraints posed recruiting and sample size issues. Due to the large number of master's students who were preparing their dissertations at the same time, it was difficult for some teachers to provide us with deeper insights regarding the research area. It is worth mentioning that these limitations did not reduce the value of the

work. Thus, despite the aforementioned limitations, the obtained data enabled us to answer the research questions and achieve the research aims.

Implications and Recommendations

Based on the findings of this master dissertation, several potential recommendations for further studies in this field can be explored. To begin, longitudinal studies to study the long-term benefits of certain self-regulation practices or strategies on students' classroom engagement and academic achievement would be desirable. This could provide a more thorough understanding of the effectiveness and long-term viability of various techniques. Furthermore, investigating the role of individual differences in self-regulation and classroom participation could be beneficial. Personality traits, learning styles, and cultural backgrounds can all influence the selection and use of self-regulation tools, as well as students' levels of involvement. Investigating these variables may help us better grasp the complex relationship between individual attributes and academic engagement. Furthermore, broadening the scope of the study to include a bigger and more diverse sample of individuals might improve the findings' generalizability. This may entail researching students from various educational levels, institutions, or cultural situations, as well as a broader range of fields. A more thorough knowledge of the relationship between self-regulation, classroom engagement, and academic success could be gained by comparing findings across these many situations. Finally, using other qualitative research methodologies, such as focus groups, could provide deeper insights into students' self-regulation and classroom involvement experiences, attitudes, and motives. This qualitative data, in addition to the quantitative findings, may provide a more detailed picture of the underlying processes and mechanisms involved. Future research can extend our knowledge and contribute to the creation of successful techniques to improve students' self-

regulation, classroom engagement, and overall academic outcomes by addressing these recommendations.

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Appendices

Appendix A: Students' Questionnaire on student self-regulation and classroom engagement

Dear students,

This questionnaire is a part of a research study on investigating the relationship between student self-regulation and student classroom engagement. In order to accomplish this aim, you are kindly requested to answer the following questions. Your answers will be used only for academic purposes.

THANKS IN ADVANCE!

Section1:Self-Regulation

Here are some definitions of self-regulation within academic contexts:

“Academic self-regulation refers to self-generated thoughts, feelings, and actions intended to attain specific educational goals such as analyzing a reading assignment, preparing to take a test, or writing a paper” (Zimmerman et al., 1996)

“self-regulation refers to an individual’s ability to ensure the completion of previously set goals despite competing demands and distractions (Zimmerman, 1995). Therefore, self-regulation is usually defined as a broad range of post intentional processes, exercising control over the environment, parsimonious information processing, and control over emotions and attention.

Self-regulation might be referred to action orientation that enables individuals to down-regulate interfering negative emotions when they are in conflict with the selected goals (cf. Baumann & Kuhl, 2002).” As cited in Luszczynska et al. (2004).

1. To what extent is learning English important to you?

Little importance neutral Important Very important

2. Please rate the following cases from 1 to 4 based on how much you relate to them:

N.B. These cases are some situations where a student is COGNITIVELY REGULATED

Cases	1= strongly not related	2= not related	3= related	4= strongly related
1. I pay attention and focus on the material presented even when it is challenging or unfamiliar				
2. I apply critical thinking skills to analyze and evaluate information, such as comparing and contrasting different perspectives on a topic.				
3. I generate new ideas and make connections between different concepts;				
4. I reflect on the learning process and identify areas where additional support or practice is needed.				
5. When I set goals, I track progress towards achieving them.				

2. Please rate the following cases from 1 to 4 based on how much you relate to them:

N.B. These cases represent situations where a student is BEHAVIORALLY REGULATED.

1=strongly not related; 2= not related; 3= related; 4= strongly related.

a.I can control my behaviors and make adjustments when needed, for instance: taking a break when feeling restless or overwhelmed.

1 2 3 4

b. I follow directions and complete assigned tasks even when feeling unsure or hesitant.

1 2 3 4

c. I work independently and responsibly, without needing constant supervision or reminders.

1 2 3 4

d. I use problem-solving skills (such as: analyzing; synthesizing; creative and critical thinking) to overcome obstacles or conflicts that arise in the classroom.

1 2 3 4

3. Please rate the following cases from 1 to 4 based on how much you relate to them:

N.B. These cases are related to EMOTIONAL REGULATION within the classroom context.

Cases	1=Strongly not related	2= not related	3=related	4= strongly related
1. I control impulsive or reactive responses, for example: taking deep breath and calming down when feeling angry or frustrated during a challenging assignment instead of reacting impulsively and lashing out at others.				

2. I communicate personal feelings and needs in a respectful way during a class discussion instead of shutting down or becoming defensive.				
3. I use positive self-talk and overcome anxiety and perform well on difficult test\exam; for example: I say “I can do this” instead of “I can’t do it”.				
4. I stay focused and present during class lectures instead of becoming distracted or disengaged.				

Section 2: Student Engagement

Here are some definitions of student engagement:

“A construct used to describe an inner quality of concentration and effort to learn” Newmann (1992)

“A mediator between context, individual, and outcomes” (Appleton et al., 2006).

“Student engagement is the product of interactions between the learning context and the ‘self’ or the fulfillment of developmental needs for competence, autonomy, and connectedness” (Skinner et al., 2008)

1. Please rate the following cases based on how much you relate to them.

(1 = strongly not related, 2 = not related, 3 = related, 4 = strongly related)

N.B. These are some cases where a student is COGNITIVELY ENGAGED.

Cases	1=strongly not related	2= not related	3=related	4=strongly related
<p>1. I set goals and monitor my learning process.</p> <p>2. I embrace challenges and learn from mistakes.</p> <p>3. I try to solve complex activities through using multiple strategies and considering various approaches to arrive at a solution and think outside the box.</p> <p>4. I apply learning to real-world problems and situations.</p> <p>5. I use a variety of sources and synthesize information to draw meaningful conclusions while conducting research.</p> <p>6. I hypothesize about potential information and points and make predictions based on prior knowledge when dealing with a new lecture.</p>				

2. Please rate the following cases based on how much you relate to them

(1 = strongly not related, 2 = not related, 3 = related, 4 = strongly related)

N.B. These are some cases where a student is BEHAVIORALLY ENGAGED.

CASES	1=strongly not related	2= not related	3=related	4=strongly related
a. I participate actively in class discussions, and raise my hands to answer questions				
b. I follow classroom rules and expectations, such as: respecting others' opinions, arriving on time...				

c. I use technology, appropriately and responsibly in the classroom, as a tool to support the learning process, for example using a phone to take notes in an organized e-note sheet.				
d. I help classmates with a difficult assignment voluntarily and lead a group project.				

1. Please rate the following cases based on how much you relate to them

(1 = strongly not related, 2 = not related, 3 = related, 4 = strongly related)

N.B. These are some cases where a student is EMOTIONALLY ENGAGED.

Cases	1= strongly not related	2= not related	3= related	4= strongly related
1. I Share personal experiences and insights in oral discussions, and actively listen to others' perspectives.				
2. I feel a sense of responsibility and ownership while doing class projects.				
3. I build relationships with peers and work together towards a common goal.				
4. I seek support from the teacher or classmates when things get rough in the class.				
5. I build positive relationships with peers and the teacher by showing empathy, listening actively, and respecting differences.				

Section 3: Correlation between Self-Regulation and Student Engagement

Please answer the following questions:

1. When you control your thoughts and feelings in the classroom, what do you notice in terms of your classroom engagement?

- a. more engagement
- b. Less engagement
- c. no engagement is noticed?

2. How would you engage in the classroom if you appropriately manage your thoughts and feelings?

.....

3. According to you, does regulating your behaviors within classroom contexts have an influence on your classroom engagement?

Yes No

If yes, how?

.....

4. Do you think that there is a relationship between -your - self-regulation and -your- classroom engagement? Would you please explain how?

.....

Your time and help are very appreciated!

Appendix B: Teachers' Interview Questions

- 1.** What is your definition of students' classroom engagement?
- 2.** To what extent do you think it is important? Why?
- 3.** According to you, why are some students more likely to engage in the classroom than others?
- 4.** How do you manage to foster your students' engagement in the classroom?
- 5.** What are the main aspects of classroom engagement that appear on your students (how do they show their engagement)?
 - 6.a.** In which activities do students see more engaged?
 - b.** In which activities do you notice less engagement?
 - c.** How can you explain that?
- 7.** Do you think that self-regulation can determine student engagement? (i.e. Can student self-regulation affect student's classroom engagement?)

Could you explain how?
- 8.** what is your definition of self-regulation?
- 9.** Does the situation where the student is (a. cognitively regulated, b. emotionally regulated, c. behaviorally regulated) can affect his classroom engagement? please explain each situation according to your perspectives.
- 10.** Do you think that there is any kind of relationship between self-regulation and student engagement?

Résumé

De nombreux articles universitaires ont exploré la participation des étudiants en classe ; cependant, le concept d'autorégulation a récemment attiré l'attention des chercheurs et des psychologues. Par conséquent, des études ont été menées pour examiner la relation entre l'autorégulation et les environnements scolaires. Étonnamment, l'étude de l'autorégulation en relation avec l'engagement des étudiants en classe n'a pas été largement explorée dans la littérature universitaire. En conséquence, l'objectif principal de cette thèse de master est d'étudier s'il existe une corrélation entre l'autorégulation et l'engagement des étudiants en classe parmi les étudiants en anglais langue étrangère inscrits à l'Université de Biskra. L'étude vise à mettre en évidence les stratégies d'autorégulation utilisées par les étudiants en anglais langue étrangère et à comprendre les processus par lesquels les étudiants participent activement aux activités en classe. De plus, cet article de recherche vise à étudier les perceptions des enseignants d'anglais langue étrangère de l'Université de Biskra concernant l'engagement des étudiants en relation avec l'autorégulation. En utilisant une approche mixte, la recherche comprend un questionnaire administré aux étudiants en anglais langue étrangère et des entretiens menés avec les enseignants d'université en anglais langue étrangère. Les résultats révèlent une corrélation positive entre l'autorégulation et l'engagement des étudiants en classe parmi les étudiants en anglais langue étrangère. Les résultats fournissent également des informations précieuses sur les différentes stratégies d'autorégulation utilisées par les étudiants et les approches d'engagement efficaces. Cette compréhension a le potentiel d'améliorer les pratiques pédagogiques, de favoriser les compétences d'autorégulation et de promouvoir l'engagement des étudiants dans les contextes d'apprentissage de l'anglais langue étrangère.

Mots clés : Autorégulation, Engagement des étudiants en classe, Étudiants en anglais langue étrangère.

