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**The Impact of Iraqi EFL Learners' Self-Regulation Strategy Use
on their Grammar Learning and Reflective Thinking**

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To

The Soul of My Late Friend, Dr. Raghad Abdel Qader.

Table of Contents

Acknowledgements	II
Table of Contents	IV
List of Tables	VI
Abstract.....	VII
Chapter One: Introduction	1
1.1 Preliminaries.....	2
1.2 Statement of the Problem	6
1.3 Research Questions	7
1.4 Significance of the Study	8
1.5 Definition of Key Terms	8
Chapter Two: Review of the Literature.....	10
2.1 Introduction	11
2.2 Self-Regulation.....	11
2.3.1 Models of Self-Regulation	13
2.3.2 Characteristics of Self-Regulated Learners	15
2.3.3 Self-Regulated Learning	16
2.4 Reflective Thinking.....	18
2.4.1 Advantages of Reflective Thinking.....	20
2.4.2 Ways to Foster Reflective Thinking.....	21
2.5 Grammar Learning Strategies	24
2.5 Empirical Studies	27
Chapter Three: Methodology	32
3.1 Introduction	33
3.2 Research Design.....	33
3.3 Participants of the Study	33
3.4 Instruments	34
3.4.1 Self-Regulation Trait (SRT) Questionnaire	34
3.4.2 Grammar Learning Strategy Use Questionnaire	35
3.4.3 Reflective Thinking Questionnaire (RTQ).....	35
3.5 Procedure.....	36
3.6 Data Analysis	36

Chapter Four: Results	37
4.1 Introduction	38
4.2 Restatement of the Research Questions	38
4.3 The First Research Question	39
4.4 The Second Research Question	42
4.6 The Third Research Question.....	44
Chapter Five: Discussion, Conclusion, Implications, and Suggestions.....	48
5.1 Introduction	49
5.2 Discussion	49
5.2.1 Discussion of the First Research Question Results.....	49
5.2.1 Discussion of the Second Research Question Results	52
5.2.1 Discussion of the Third Research Question Results	54
5.3 Conclusion.....	57
5.4 Pedagogical Implications of the Study	60
5.5 Limitations of the Study	62
5.6 Suggestions for Further Research	63
References.....	65
APPENDIX A Self-Regulation Questionnaire	81
APPENDIX B Grammar Learning Strategy Use Questionnaire	83
Appendix C The Questionnaire for Reflective Thinking	90

List of Tables

Table	page
Table 4.1 Descriptive statistics of EFL learners' performance on self-regulation and grammar-learning strategy questionnaires.....	39
Table 4.2 One-sample Kolmogorov-Smirnov of the self-regulation and grammar-learning strategy questionnaires.....	40
Table 4.3 Pearson correlation between the participants' self-regulation and their grammar learning strategy use).....	41
Table 4.4 Descriptive statistics of EFL learners' performance on self-regulation and reflective thinking.....	42
Table 4.5 One-sample Kolmogorov-Smirnov of the self-regulation and reflective thinking..	42
Table 4.6 Pearson correlation between the participants' reflective thinking and their self-regulation.....	43
Table 4.7 Model Summary.....	44
Table 4.8 ANOVA of regression model.....	45
Table 4.9 Coefficients of the model	46

Abstract

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<p>The present study aimed at investigating the relationship between EFL learners' self-regulation, reflective thinking, and their predictive ability concerning EFL learners' grammar learning strategy use. In doing so, 120 EFL learners were asked to answer the items of the self-regulation trait, Grammar learning strategy use, and reflective thinking questionnaires. The results of Pearson correlation showed that there is a statistically significant relationship between EFL learners' self-regulation and their grammar learning strategy use. In addition, the results of Pearson correlation showed that there is a statistically significant relationship between EFL learners' reflective thinking and their self-regulation strategy use. Finally, the results of multiple regression showed that the learners' metacognitive strategies are the most significant predictor of their grammar learning strategy use which would indicate that the larger use of the learners' metacognitive strategies is related to higher use of grammar learning strategy use. The findings of the present study tend to direct the attention of teachers of EFL courses and course designers toward the importance of using self-regulation and reflective thinking as strategies to move away from traditional instructions to process-oriented strategies to develop EFL learners' grammar.</p>	

Chapter One

Introduction

1.1 Preliminaries

Individual differences add to learners' ability to predict their language learning performance and confirm that they are as important as intelligence for language achievement (Jolić, Altaras, Protić, & Mestre, 2021). The idea that language learning varies with personality traits may suggest that some of these traits are beneficial for learners (Jolić, et al, 2021). Self-regulation, as one of the personality traits, has been proposed to refer to self-directed processes that give learners the opportunity to transform their mental capabilities into performance skills (Zimmerman, 2008) . By increasing learners' ability in a more impressive manner, self-regulation learning can contribute to individuals' perceived competence and expectations for success . It has been proposed that, besides knowing what aspects to improve and how to enhance these aspects, self-regulated learner must be motivated to improve (Zimmerman, 2006) .

The concept of self-regulation comes "from the field of educational psychology and' has a long history. Since the 1980s, the concept of self-regulation has been investigated from a variety of theoretical perspectives (de la Fuente-Arias, 2017). Pintrich (1995) was the first to define self-regulated learning as an active and constructive process. During this process, students develop learning objectives and manage, organize, and supervise their actions to achieve these objectives. This definition has been used to build a large number of models. Panadero (2017) compiled, compared , and evaluated the six most widely used models. Most self-regulated learning models incorporate cognitive, metacognitive , behavioral, motivational, and affective learning dimensions and cover a wide range of variables , such as

self-efficacy, self-efficiency, metacognitive and cognitive strategies, motivational and emotional factors, and learners' attitudes.

Self-regulated school learning behavior, according to Mih and Mih (2010), involves the activation of a relatively high number of psychological variables. Learning objectives, personal self-efficacy, metacognition, and test anxiety are some of the essential self-regulation components that affect school learning. The adaptive functioning of these is linked to strong academic achievement and advanced learning ability. As a result, various learning objectives determine diverse evolution paths. Competency and performance objectives can stimulate cognitive, motivational, and emotional strategies, as well as performance disparities. High self-efficacy and strong learning outcomes are associated with advanced metacognition. Competency objectives are excellent predictors of advanced processing.

For some people, learning a language is synonymous with learning its grammar explicitly (Eisenmman & Summer, 2013). Grammar refers to the collection of rules that are used to create new words and sentences (Zarifi & Taghavi, 2016). Fromkin, et al. (2018, p. 13) define grammar as “the knowledge which speakers have about the rules and units of their language.” Hahn, et al. (2020) defined grammar as a collection of rules that describe how words or groups of words are arranged to produce sentences in a certain language. English grammar encompasses all current principles that govern how English sentences are formed and what English learners seek to learn. Grammar is a methodical study of a language, a set of rules, and its definition. Grammar exists in all languages, according to a key claim of Schleppegrell (2020). Words, sentences,

phonetics, phonological systems, and systematic meaning must all be present in a language (Schleppegrell, 2020).

In the last 20 years, much research has developed concentrating on language learning strategies because strategies are unquestionably vital for language acquisition as instruments for active, self-directed engagement, which is required for establishing communicative competence (Oxford, 1990). Unlike most other qualities of the learner, personality, and general cognitive style, learning strategies are readily teachable, and using suitable language learning methods leads to greater competence (Oxford, 1990) . Dörnyei (2005) assumed that involving self-regulation in the language learning process would lead to a broader understanding of the concept than recent definitions of language learning strategies. With this change , the emphasis has shifted from the product to the process . Furthermore, he stated that self-regulation is the foundation for a more dynamic model than language learning strategy concepts . As a result, any study that investigates the impact of employing these strategies has practical implications for English as a second language (ESL) or English as a foreign language (EFL).

Reflective thinking has recently been identified as one of the approaches which contributes to developing teachers' teaching practice. Boud (2001) defined reflection as the process of turning experience into learning in order to learn new things from it. Boud et al. (1985, p. 19) believed that reflection is an activity in which people “recapture their experience, think about it, mull it over and evaluate it”. They also mentioned that “reflection includes returning to experience, attending to feelings (using helpful feelings and removing unhelpful ones), and evaluating experience (re-assessing

experience in light of our purpose and existing schemata and integrating new knowledge into our conceptual framework”(ibid, p. 19).

Reflective thinking, which is more than merely thinking about something is another crucial element in L2 learning. It refers to nearly any deliberate thinking in which learners engage in active, persistent, and critical analysis of concepts in order to gain a deeper understanding (Wilson & Murdoch, 2006). One of the most fundamental goals of education is to teach people to think about their thinking (Moon, 1999) . As our society evolves, users must adapt their problem-solving skills and apply new information to unique situations; it is critical to encourage reflective thinking while learning . According to Rudd (2007) , one key aspect of reflective thinking is to prompt the thinker during problem-solving circumstances because it allows the thinker to stand back and consider the best tactics to attain goals . Furthermore, as stated by Boud, et al. (1985) , reflective thinking is necessary in every sector of language learning and instruction. They added that teachers and students must reflect on their routines on a regular basis. Reflection is a set of cognitive and affective actions that people use to assess their experiences and gain new insights.

Given the importance of self-regulation strategy use in language learning, this study is an attempt to find the relationship between Iraqi EFL learners’ self-regulation strategy use, reflective thinking, and their grammar learning. It also seeks to find which component of EFL learners’ self-regulation is a significant predictor of their grammar learning strategy use.

1.2 Statement of the Problem

As Kurniawati (2019) mentioned, higher-level thinking skills improve higher-level learning skills leading to academic achievement. Moreover, it is said that the major cause of failure in academic achievement is the lack of self-regulation. Understanding learning processes in the classroom requires an understanding of self-regulation, and research into its dynamics and outcomes may have implications for creating optimal learning environments (El-Henawy, et al., 2010). Underachievers are involuntary, have lower academic ends, are less accurate in evaluating their capabilities, are more self-critical and less effective about their performance and tend to give up easily than high achievers (Siegle et al., 2020). These students are more nervous, have a lower self-esteem, have a higher need for affirmation, and are more easily influenced by extrinsic elements (Siegle et al., 2020). On the other hand, respecting such criteria, self-regulators are immediately identified in the classroom like they are self-starters, they are confident, strategic and resourceful, and they are self-reactive to task performance results.

Although English has been taught as a foreign language (EFL) in Iraq from elementary school to university level, it has not been employed in real-life situations because Arabic is the lingua franca of Arab countries. Essentially, Arabic is the medium of instruction in most Iraqi schools and for all courses from the basic to the tertiary level, but English is considered a foreign language and is only taught as a subject (course) (Al-Murshidi, 2014). As a result, Iraqi EFL students have little opportunity to connect and converse in English outside of the classroom.

Unfortunately, many Iraqi EFL students have difficulty with grammar. This fact has been documented by Al-Bayati (2013) and Al-Shujairi and Tan (2017). They stressed the fact that most Iraqi secondary school students have a critical problem in using verbs tense, articles, and prepositions. Grammar has been a barrier to assisting EFL learners in developing fluent communication skills, and the function of grammar education in the EFL environment has been a major concern for both students and teachers. The argument is that students frequently struggle to grasp the application of grammatical principles taught in class (Al-Shihri, 2019). It implies that while they may understand the rules properly, they are unable to apply them in their own usage of the language. Grammar guidelines are sometimes a source of confusion for both students and teachers (Nagaratnam & Al-Mekhlafi, 2013).

Taking the importance of language learning strategies in today's world into consideration, and the importance of psychological matters, this study aims to find the relationship between Iraqi EFL learners' self-regulation strategy use, reflective thinking, and their grammar-learning enhancement. It is also going to find whether the self-regulation strategy use is a significant predictor of their grammar learning improvement.

1.3 Research Questions

To meet the aforementioned purposes, the following research questions are proposed:

1. Is there any significant relationship between Iraqi EFL learners' self-regulation strategy use and their grammar learning strategy use ?

2. Is there any significant relationship between Iraqi EFL learners' self-regulation and reflective thinking?
3. Which component of EFL learners' self-regulation is a significant predictor of their grammar learning strategy use?

1.4 Significance of the Study

This study is significant in the way that it would help EFL teachers to enhance the level of students' self-regulation through several achievable teaching techniques. Performance accomplishment is a more crucial factor for developing self-regulation of learners who have several experiences of success than those who have several experiences of failure. Teachers should give learners some tasks that they can perform (Dörnyei, 2003); hence, learners can build successful experiences.

The findings of this study would be beneficial for English language classrooms, especially in foreign contexts which impose new problems for teachers to deal with which the teachers have to be equipped with a well-developed capacity in order to handle new problems and situations. Hence, reflective thinking is an influential resource which paves the way for teachers to handle diverse problems.

Considering the learners' self-regulation and grammar learning strategies simultaneously by EFL teachers would result in better language learning for EFL learners. Conducting a study by considering individuals' self-regulation is vital for EFL teachers, and EFL learners.

1.5 Definition of Key Terms

Grammar Learning Strategies: A description of the structure of a language and the way in which linguistic units, such as words and phrases are combined to produce sentences in the language. It usually takes into account the meaning and the functions these sentences have in the overall system of the language. It may or may not include the description of the sounds of a language (Richrds & Schmidt, 2002). In this study, a grammar learning strategy use questionnaire designed by Gurata (2008) was used to measure the participants' use of grammar learning strategies.

Self-regulation refers to self-directed processes that give learners the opportunity to transform their mental capabilities into performance skills (Zimmerman, 2008) . In this study, self-regulation was measured using self-regulation trait (SRT) Questionnaire designed by Seker (2016).

Reflective thinking is a popular term in teacher education, and it is a mode of thinking which would be used correspondingly with modes of thinking like metacognition, critical thinking, analytical thinking, and creative thinking among modern education approaches during the education process (Gurol, 2011). In the present study, EFL teachers' reflective thinking is measured by the reflective thinking questionnaire (RTQ) developed by Kember et al (2000) and contains 16 items descriptive of the four types of reflective thinking.

Chapter Two

Review of the Literature

2.1 Introduction

This chapter comprehensively reviews the theoretical underpinnings of reflective thinking, self-regulation and grammar learning strategies. First, major definitions and components of self-regulation are provided. The second section studies the concept of reflective thinking and its different models. Afterwards, some approaches to language learning strategies, especially grammar learning strategies, are provided. Finally, some empirical studies related to the main variables of the study are provided.

2.2 Self-Regulation

Self-regulation means that a person is metacognitively, socially, motivationally and behaviorally active in his or her own problem-solving processes using self-observation, self-judgment and self-reaction to pay attention to information. The person can also plan and organize time; process, synthesize and organize knowledge; code and rehearse information to be remembered (to invoke metacognitive skills); keep a positive sense of self-efficacy; establish a productive work environment; use social resources effectively; and experience a positive expectation about the potential result of learning new information (Schunk, 1989; Schunk & Zimmerman, 1997; Zimmerman, 2000).

According to Baumeister and Vohs (2004) , procedures that allow individuals to use control over their thoughts , feelings, and actions can be considered as Self-

regulation . Procedures that have been developed to expand the range and flexibility of human performance and make it possible for human beings to dominate counterproductive responses can be considered as Self-regulation ; one needs a sense of self-awareness for self-regulation to occur and , if other people are involved, the capability to deduce the mental state of others (Baumeister, 2005) .

Baumeister and Uohs (2004) define “self-regulation” as “the exercise of control over oneself, especially with regard to bringing the self into line with preferred (thus, regular) standards” (p. 2). The terms self-regulation and self-control are used interchangeably, although some researchers make subtle distinctions between the two concepts. Some researchers use “self-regulation” to refer broadly to goal-directed behaviors, whereas “self-control” may be associated specifically with conscious impulse control (Baumeister & Vohs, 2004). According to Schmeichel and Baumeister (2007), “self-regulation” refers to both the conscious and subconscious alteration of one’s own responses, while “self-control” implies a more deliberate and conscious process of altering one’s responses. In self-regulation, the self-acts upon itself to alter its own responses. Regulation of this response is usually initiated with the goal of achieving a desired outcome, such as improving one’s mood or avoiding an undesirable result (Schmeichel & Baumeister, 2004).

It has been supposed that self-regulation processes bring about optimistic results. However, when control over one’s behavior breaks down, as Baumeister (1997) stated, self-regulation fails which likely leads to negative results. Baumeister (1997) suggested that there are two forms of self-regulation breakdown: under-regulation and miss-regulation. The first refers to the self-failing to make an effort to

change its response and emit the best result, while the second refers to the self-making an effort to alter its retort, but the change does not lead to the best result. The latter shows that there may also be disadvantages to the use of self-regulation processes.

Self-regulation comprises processes that have evolved to expand the range and elasticity of human behavior, making it possible for human beings to dominate counterproductive responses.

Self-awareness permits people to ponder on their actions and recognize whether their actions meet personal standards and beliefs as well as group standards. The ability to deduce the mental state of others, also known as the ability to have the theory of mind, enables people to understand and collaborate with others, and to understand their performance. Data from neuro-imaging studies proposed that a great deal of self-relevant and other-relevant information is processed in the medial prefrontal cortex of the brain (Krendland & Heatherton 2009). As the aptitude to self-regulate is located in an area of the brain that developed moderately late in development, this ability is thought to be one of the features that differentiates human beings from animals (Baumeister, 2005).

2.3.1 Models of Self-Regulation

Most of the studies on self-regulation have given rise to different theoretical models. Pintrich's (2000) self-regulated learning model is one of the most important self-regulation studies; it is an attempt to integrate the different processes and activities which help to improve self-regulation during learning (Torrano & Gonzalez, 2004). Pintrich manages the different regulatory processes in four steps regarding a socio-cognitive perspective: planning (before starting the task), self-observation

and monitoring (during task execution) and evaluation (after ending the task). Regulation activities are considered as four separate areas in each of these steps: affective, motivational, behavioral, contextual and cognitive. In relation to the activity , affective and motivational regulation encompasses the subject's ideas about himself or herself, example judgments about one's own effectiveness, the value assigned to the task, and related personal interest. Behavioral regulation involves the subject's efforts to monitor his or her behavior: attempt to do the tasks , insistent, help-seeking and selection of strategies.

Zimmerman (2002) recommended a three-section , cyclical model of self-regulation : Forethought , consists of goal setting , choice of strategies and methods, evaluating self-efficacy , evaluating mastery or performance goal orientation and evaluating interest . Performance control consists of focusing attention (excluding distractions and other competing attentions) , self-instruction and self-monitoring of progress. Self-reflection consists of self-evaluation against a standard or purpose , features to capability or effort, self-reactions and adaptation (Zimmerman, 2002).

Both cognitive and metacognitive Strategies are in the area of regulating cognition. As Gonzllez (1997) said, cognitive strategies involve all those learning strategies, which contribute to the process of perceiving, codifying and remembering information. Those strategies that allow for planning, controlling and managing one's own mental processes in order to gain the desired purpose refer as metacognitive strategies. Metacognition includes both the subject's knowledge about his or her own mental processes as well as the capability to monitor these processes through regulation. In order to establish its particularities Brown (2004) analyzed the contradiction of

metacognition, both *knowledge* and *regulation*. Because of knowledge about one's own mental processes, this compelled the subject to consider his or her own cognitive process as an object of thought and reflection, and also this is something which improves later. The subject must be able to consider this process as a relatively stable, verifiable and possibly fallible act .

2.3.2 Characteristics of Self-Regulated Learners

As Pintrich (1995) mentioned, self-regulation is not an enduring measure of mental intellect after a certain point in life, nor is it an individual trait that is hereditarily based or formed early in life. Students learn self-regulation through experience and self-reflection (Zimmerman, 1998). Students can control their behaviors and affect to develop their academic learning and performance , as self-regulation is not a personality trait (Pintrich, 1995).

Self-regulated learners are directly related to good thinkers who show the following four main features (Brown and Pressley, 1994):

- Good thinkers use cognitive strategies
- Good thinkers employ metacognitive strategies. They monitor their progress closely .
- Good thinkers have other knowledge (on the other topics) .
- Good thinkers possess motivational beliefs . (p.158).

In another study done by Wyatt, Pressly, el Dinary, Stein, Evans and Brown (1993), the self-regulated readers have other values like being good at:

- expecting and predicting information

- looking for information relevant to their purpose
- jumping forward to look for specific information
- jumping back to look for specific information do it
- quickly move back and forth in texts
- backtrack
- pay attention to tables and figures and some other details
- construct paraphrases/explanations
- sum up effectively.

Such readers are always engaged in self-regulated learning as well, knowing what to do, how to do it, and when to do, and also they effectively make use of cognitive and metacognitive strategies. These learners plan very well and know how, when and where to use the strategies. The best way is to train students regarding the use of the metacognitive strategies and set up an inherent motivation in them if they have not improved such habits and strategies. To that end, teachers should clarify and model effective cognitive and metacognitive strategies and help students to control their progress .

2.3.3 Self-Regulated Learning

Self-regulated learning process focuses on the learner's role in managing and controlling the learning process. Working on Self-regulated learning among students showed that motivational outcome variables (e.g., effort) and motivational opinions (e.g., self-efficacy) were positively linked to applying cognitive and metacognitive strategy (Pintrich and Schunk, 2002; Schunk, 2001).

Ericsson (2020) stated that individuals must be willing to invest maximal efforts to enhance and preserve these efforts over the years in order to reach optimal levels of performance . Self-regulated learning consists of setting goals for learning, focusing on training, using efficient strategies to systematize ideas, using resources successfully, observing performance, managing time efficiently, and holding positive beliefs about one's capacities (Schunk & Ertmer, 2000). Steffen (2006) proposed that in educational and psychological research self-regulated learning has become a significant topic. The reason for this is that the degree to which learners are able to control their own learning greatly will enhance their learning effects.

As Pintrich (2000) mentioned self-regulated learning is, "an active, constructive process whereby learners set goals for their learning and then attempt to monitor, regulate, and control their cognition, motivation, and behavior, guided and constrained by their goals and contextual features of the environment" (p. 435)

According to Pintrich and de Groot (1990), self-regulated learning connects three main constructs; students' metacognitive strategies for planning, monitoring, and regulation, students' management and control of their attempt on classroom academic information, and cognitive strategies that students use to learn, memorize and realize the information.

In the context of learning, self-regulation has been proposed to refer to self-directed processes that permit learners to alter their mental abilities into performance abilities (Zimmerman, 2008) . Individuals who are proactive in their learning tasks and not reactive are considered as self-regulated learners. That is, they show individual plan, insistence, and adaptive skills, deriving from constructive metacognitive strategies

and motivational ideas (Zimmerman, 2006, 2008). Thinking about one's own thinking is Metacognition that consists of processes such as planning and self-monitoring (Hong and O'Neil, 2001). As Zimmerman (2006) mentioned, Self-regulation processes are thought to help people obtain knowledge and skills more efficiently. These processes do not immediately create high levels of expertise .

According to Zimmerman (2008), SRL consists of a series of recurring phases in which its starting point can be the learners' information and main beliefs. When self-regulated learners participate in educational activities, they first use their information, beliefs, and knowledge so that they can have an appraisal of the qualifications and tools required for those activities. After that, based on their assessment, they conclude their "goals". Lastly, throughout using strategies which result in cognitive, affective, and behavioral outcomes, they approach their pre-set goals. Students come up with an inner feedback, which gives them new information to reconsider those activities and the approach they should take while participating in the activities during the monitoring process of their learning activities and controlling their progress .

2.4 Reflective Thinking

Reflection is the "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends" (Dewey, 1933, p. 9). Faculty of Public Health (2009) considered reflective thinking as recognizing and defining the valuable knowledge we bring to every new experience. The learning process fundamentally relies on the important connections between what we already know and how we place that in the

context of new events. In this way, we become active, aware, and critical learners. The value of reflective thinking is to provide opportunities for young people to process or reflect on their educational experiences (Immordino-Yang, et al., 2019).

Reflective thinking begins with a state of doubt and hesitation focuses on the act of searching to find material that will resolve, clarify, or otherwise address the doubt. This may consist of experience or of relevant knowledge, neither of which necessarily leads to reflective thought : “To be genuinely thoughtful, we must be willing to sustain and protract that state of doubt which is the stimulus to thorough inquiry” (Gordon, 2016, p. 16). Moreover, Dewey believed that thinking was natural but that reflective habits of mind needed to be taught. Attitudes play an important role in acquiring the reflective habit. Attitudes that should be cultivated include *open-mindedness* , “freedom from prejudice, partisanship, and such other habits as close the mind” (p. 30); *whole-heartedness*, “*genuine enthusiasm*” and *responsibility*, “to consider the consequences of a projected step and to be willing to adopt these consequences when they follow reasonably from any position already taken” (p. 32). The teacher’s role is significant to sustain the reflective thought of individual students .

Reflective thinking, according to Boyd and Fales (2013, p. 110), is the process of internally examining and exploring an issue of concern, triggered by an experience, which creates and makes sense of the meaning of the self, and which results in a changed conceptual perspective. Reflective thinking is the key element in learning from experience. Reflective thinking emphasizes the self as the source of learning and is, therefore, an individual and interactive process.

Schön (1983) and Farrell (1990) classified reflective practice into three categories based on the timing it is used during the teaching and learning experience: reflection-in-action, reflection-on-action, reflection-for-action. Reflection can help teacher candidates to get prepared for their future teaching careers as after this observation, they reflect upon what they will do if they face similar situations in the future.

2.4.1 Advantages of Reflective Thinking

Schon (1987) believed that reflective thinking practice could be useful both for teachers and learners. Reflective thinking is characterized by self-questioning and may be attained by persons who are resourceful, free of preconceptions, and capable of thinking critically while pushing oneself with the following questions: 'What have I done?' 'What exactly am I doing?' 'What are my acts saying?' Reflective thinking, in this sense, is a meaning-making process that enables a learner to go from one experience to the next with a deeper understanding of how it relates to and links to other practices and concepts (Rani, 2022). Reflective thinking entails thinking extensively about learning/teaching and the thinking process, as well as self-evaluation and problem-solving (Elmal & Kyc, 2018). Reflective thinking increases an individual's power while looking for solutions to difficulties (Kholid, et al., 2010).

The overarching goal of reflective thinking is to better comprehend a scenario, event, or piece of information in order to address the current problem. Claims, issues, hypotheses, reasoning, and testing are all components of reflective thinking. To think completely reflectively, the learner should go through the following steps in the sequence listed. Dewey lists these stages as follows (as cited in Bustami, et al., 2018):

- (1) Experience
- (2) Self-awareness of experience
- (3) Naming difficulties or questions that exist outside of the experience
- (4) Creating constructive answers for stated difficulties and queries
- (5) Branching out explanations inside fully established hypotheses
- (6) Validation of selected hypotheses .

Individuals who are able to think reflectively in order to self-evaluate and evolve are more likely to use reflective implementations. In this regard, reflective teaching is an effective approach to professional development for both preservice and in-service teachers (Mathew, et al., 2017). Teachers that have a high degree of learning readiness and reflective thinking are effective at directing the teaching and learning process, effectively utilizing information sources, maintaining motivation, having strong problem-solving abilities, and serving as a role model for students (Gencel & Saracaloglu, 2018) . As a result, reflective thinking may be defined as the foundation for improving implementation, building skills, and organizational learning (Dohn, 2011).

2.4.2 Ways to Foster Reflective Thinking

According to Boud (2001), reflective thinking can be done either for ourselves or for other people. He considered journal writing as a way of self-expression, a record of events, a form of therapy, or a combination of these and other purposes. Moon (1999) believed that journal diaries could be written for one of the following reasons:

- To deepen the quality of learning in the form of creative thinking or developing a questioning attitude .

- To enable learners to understand their own learning process .
- To increase active involvement in learning and personal ownership of learning .
- To enhance professional practice or the professional self in practice .
- To enhance the personal valuing of the self towards self-empowerment .
- To enhance creativity by making better use of intuitive understanding .
- To free-up writing and the representation of learning .
- To provide an alternative ‘voice’ for those not good at expressing themselves, and
- To foster reflective and creative interaction in a group (p. 194).

Keeping a journal diary can be one of the best and easiest ways of assisting students in becoming independent learners during the process of L2 vocabulary learning. Reflective thinking has been applied in many fields including teacher education programs. This practice can be considered as a kind of reflection in which teachers or students can think or reflect on their experiences and feelings.

Moreover, reflective practice can be in the form of video-taping the teaching or learning process and keeping portfolios or diaries. Reflective journal writing is useful both for teachers and language learners. For example, it can help pre-service teachers think about the observations and tasks they have to fulfill in their classes. Greiman and Convington's (2007) research which was done to analyze the journal writing

experiences of student teachers to obtain insight into the process of developing reflective practitioners showed that student teachers were somewhat comfortable with writing as a form of communication and many perceived that journal writing went well. Reflective thinking seemed to be the outstanding advantage of journal writing.

Besides, Maloney and Campbell-Evans (2002) suggested that the interaction between journal writers and their audience results in opportunities for student teachers to make practical theory explicit. The critical observation caused student teachers to think upon their practice and modify it.

Reflective thinking means that any belief or form of knowledge should be considered in an effective, persistent and careful manner and the teachers should organize the learning process on the basis of research and constructivism. In order to achieve this, the primary goal of the teachers should be to focus on teaching learning with the limited opportunities available within the classroom (Derwent, 2015). O'Connell and Dymont (2006) argued for the benefits of reflective thinking as a tool to encourage students in the process of reflecting on their own learning and improving their own language skills.

There are many other studies that aimed to investigate the effectiveness of reflective thinking. The findings of the research done by Sen (2010) revealed the relationship between journal writing and students' academic learning, the need for self-development, actual self-development, critical review, awareness of one's own mental functions, decision-making, and empowerment.

According to Sen (2010), the most important aspect was indicated when learners “were most analytical in their reflection and expressed that in deeply analytical

reflective writing” (p. 91). Maloney and Campbell-Evans (2002) recommended that the interaction between journal writers and their audience “provides opportunities for student teachers to make practical theory explicit” (p. 39).

Based on the above discussion, it is noticed that reflective journal writing is vital for improving learners' writing ability, better achievement in the subject matter, increasing learners' interaction and motivation, and developing critical thinking skills. Creative learners need creative teachers, and creative teachers need to work in schools where creativity is appreciated. Adding creativity to teaching is considered an advantage for language teachers and learners. Creative teaching helps students improve their capabilities, their ideas, and their creative thinking. This also improves student's perception and can result in an increase in motivation and even their self-confidence (Richards, 2013).

2.5 Grammar Learning Strategies

Oxford, et al. (2007) define grammar learning strategies as "...ideas and actions students consciously employ to make language learning and/or language use easier, more efficient, more effective, or even more enjoyable (p. 117). Similarly, Griffiths (2008) describes the properties of grammar learning strategies as follows:

- 1) It is what students do that demonstrates an engaged attitude.
- 2) Their application is semi-conscious.
- 3) They are optional, which means students can choose to utilize them.
- 4) Their application is goal-oriented.

- 5) They are used to govern and regulate the learning process, and their use is meant to make the learning process easier.

So far, academics have relied on more broad classifications and models to give a framework for the activities that students use to acquire grammar or to offer a thorough description of strategic devices. The descriptive technique proposed by Oxford et al. (2007), which may construct a preliminary taxonomy of grammar learning strategies as well as a data-gathering tool, is a notable exception in this regard. Doughty (2003), DeKeyser (2003), and Ellis (2006) distinguish three kinds of grammar learning strategies that can be related to three major ways of teaching grammatical structures based on developments in research on form-focused education. These are the following:

- 1) Grammar learning strategies indicative of implicit L2 learning include a focus on form (i.e. attending to form in the course of meaning conveyance), such as noticing grammatical structures that can cause problems with meaning or communication, paying attention to how proficient people say things and imitating, noticing correction of incorrect utterances, and so on.
- 2) Grammar learning strategies that facilitate explicit inductive L2 learning (i.e. discovering rules and patterns based on input data), such as participating in rule-discovery discussions in class, testing hypotheses about how target structures work, checking with more capable peers whether a given rule interpretation is correct, and so on, and
- 3) Grammar learning strategies pertinent to explicit deductive learning (using the rules presented by the teacher in a variety of activities), such as previewing the lesson to identify the main grammatical structures to

be covered, paying attention to rules provided by the teacher or the course book, memorizing how structures change their form, and so on.

While the categorization is unquestionably a starting point for researching learning strategies, it is not without limits that must be considered when evaluating and analyzing the findings of studies (McCombs, 2017; Reed, 2021; Donoghue, 2021) in which it has been used. It takes a teacher-centered rather than a student-centered approach by classifying grammar-learning strategies according to instructional modes. It disregards existing classified strategies, emphasizes cognitive devices at the expense of other strategies, places a premium on understanding and remembering grammar structures without giving adequate consideration to how grammar is practiced and includes some techniques reflective of cutting-edge approaches to grammar instruction (Pawlak, 2012).

In this context, Drodzia-Szelest (1997) conducted a research study to determine the strategies used by high school students and discovered that, in grammar, they were cognitively reflective of dominant, conventional teaching approaches. A study directed by Fortune (1992), who investigated students' desires in regard to self-study grammar practice activities, as well as Bade (2008), who discovered that ESL learners are willing to focus more on the accuracy, invite error correction, and use various kinds of strategies in learning grammar, are more in line with mainstream strategy research.

According to Mystkowska-Wiertelak (2008), secondary school students frequently utilize metacognitive strategies, but English learners typically rely on the cognitive strategies of resourcing and analyzing, but their whole collection of grammar learning strategies is quite restricted. Pawlak (2008), who demonstrated that while

advanced students are aware of the requirement to apply Grammar Learning Strategies, they choose to use more traditional cognitive strategies, such as formal practice. Pawlak (2012) used a data-collection instrument built based on the Oxford taxonomy in additional investigations with a comparable set of respondents. He discovered that the high use of grammar learning strategies connected to implicit learning with an emphasis on the form might not be true in reality, where more traditional strategies are favored. There have also been studies that attempted to establish a link between the usage of grammar learning strategies and proficiency that are described in the next section.

2.5 Empirical Studies

Yalçın (2003) developed a grammar learning strategy questionnaire to investigate the association between grammar learning strategies and student accomplishment. To acquire information on his participants' grammatical technique use, he employed a 43-item questionnaire derived from Oxford's (1990) taxonomy. Yalçın (2003) also investigated the relationship between method utilization and overall accomplishment using the students' overall term grades. However, two issues are inherent in his research. First, numerous questions on his questionnaire appear to indicate learning styles or preferences rather than learning procedures. Several additional elements were also regarded as metacognitive strategies in the research, despite the fact that they represent either cognitive strategies (e.g., examining the specifics of new structures and linking newly learned material to prior grammatical knowledge) or emotional strategies (e.g., noticing self when tense or nervous). Second, the test results, which were utilized as variables to compare with grammar method use, represent students' overall language accomplishment but not their grammar

achievement. Yalçın's study discovered no statistically significant association between grammar learning strategy use and students' language achievement.

Sarçoban (2005) attempted to know Turkish EFL learners' strategies for learning English grammar. He gave a questionnaire to 100 pupils to find out what learning tactics they employed. The researcher also intended to classify these strategies in the manner proposed by O'Malley and Chamot (1990): cognitive, metacognitive, and social-affective strategies. However, several of the items referred to as strategies by the researcher appear to be learner preferences (for example, "I like teacher's presentation of new structures from basic to complicated"; "I would want my instructor to explain a new structure to me with all the details, and in a formulaic fashion.") Furthermore, the categorization of these goods appears to be muddled. "If there are a lot of structures and materials to learn, I become angry," for example, seems more like an emotive utterance of a student (and it may not be a method used by a skilled learner); yet, it is regarded a metacognitive approach.

Ghanizadeh and Mirazee (2012) explored the association between self-regulation, critical thinking capacity, and language success among Iranian EFL learners. To achieve the study's goal, 82 EFL university students from Mashhad's various universities were chosen using a convenience selection method. The "Watson-Critical Glaser's Thinking Appraisal" and the "Self-Regulation Trait Questionnaire" were given to them. The findings confirmed the theoretical prediction of a relationship between self-regulation and critical thinking. Subsequent data analysis revealed that self-monitoring and self-efficacy have the strongest correlations and are positive predictors of critical thinking among the components of self-regulation. Furthermore,

the findings revealed that EFL learners' self-regulation predicts around 53% of their language accomplishment, whereas critical thinking capacity predicts approximately 28% of achievement.

Khani and Ghoreyshi (2013) tried to investigate the association between Iranian EFL teachers' classroom management, reflective thinking and transformational leadership style. 247 English Foreign Language teachers took part in the study. To measure the variables of the study, Teachers Sense of Efficacy Scale (Tschannen-Moran & Woolfolk Hoy, 2001), Reflective Thinking Scale (Choy & Oo, 2012) and Multifactor Leadership Questionnaire (Avolio, Bass & Jung, 1995) were used. Structural Equation Modeling (SEM) was applied to test the hypothesized model of associations. The results revealed significant internal correlations among the main as well as the sub-scales of the study. Multiple regression analysis further confirmed the direction of the path model proposed for the study. Generally, it was concluded that reflective thinking and transformational leadership improve teachers' efficacy of classroom management which, in turn, facilitates teaching processes.

Morshedian, et al. (2016) evaluated whether using a Self-regulated Learning (SRL) paradigm to instruct English as a Foreign Language (EFL) learners enhanced their literal and critical reading comprehension. The study also intended to determine whether the level of competency of the learners may attenuate the influence of self-regulation training. Two intact experimental groups were taught self-regulatory reading procedures, whereas two control groups were given typical, regular reading techniques. The study's results were gathered using College-Level Academic Skills Test (CLAST) reading sub-tests that included both critical and literal reading comprehension sections.

Statistical studies revealed that self-regulation training could considerably increase participants' EFL literal and critical reading comprehension, although their competence level did not mitigate the impact.

Mahadi (2017) investigated the association between metacognitive self-regulated learning techniques and English language learning achievement of 170 undergraduate students majoring in various Engineering courses. In this study, the Motivated Strategies for Learning Questionnaire (MSLQ) created by Pintrich, et al. (1991) was employed. The study's findings revealed a link between students' usage of metacognitive self-regulated learning techniques and their degree of English language ability.

Choy, Yim and Tan (2017) conducted a study to test a model of reflective thinking. The participants were 1070 preservice teachers in Malaysia. Data were collected using a self-report questionnaire administered to the participants. Structural equation modelling (SEM) was employed as an analytical technique for the proposed model. The results show that reflective thinking leads to self-efficacy, self-assessment and teaching awareness, all of which are traits of competent teachers. The research model in the study also suggested that the ability to self-reflect was crucial for the development of confidence and competence among teachers.

Galvez-Martin and Bowman (2018) used experimental and control groups to determine the impact of training on reflection. They found that pre-service teachers who received training in reflection were more reflective, but they did not achieve what the researchers defined as the highest level of reflection.

Safari, Davaribina and Khoshnevis (2020) set out a study to investigate the association among EFL teachers' self-efficacy, reflective thinking, and job satisfaction. 212 Iranian EFL teachers from language institutes, schools, and universities participated in the study. They were asked to answer Teachers' Sense of Efficacy Scale, Reflective Thinking Scale and The Minnesota Satisfaction Questionnaire, as the main data collection instruments. The results revealed that there were significant internal correlations between all the latent variables and their sub-scales. Moreover, results of multiple regression analysis represented that self-efficacy and reflective thinking positively predicted job satisfaction, with self-efficacy exerting more predictive power compared to reflective thinking.

Chapter Three

Methodology

3.1 Introduction

The main purpose of the present study is to investigate the relationship between Iraqi EFL learners' self-regulation strategy use, reflective thinking, and their grammar learning strategy use. In this chapter, a comprehensive report on the participants of the study, instruments for data collection, procedures of data collection and the approach to data analysis is provided. The 'participants' section introduces the number, age, level, first language and location of the participants. The instruments' section introduces the tasks and the tests that were used in this study for collecting data. The 'procedures' section describes the actions taken in the course of the study and, finally, in the 'data analysis section, a brief introduction to statistical methods of data analysis is provided.

3.2 Research Design

Since the present study aims to find the relationship between variables, data collection will be performed through a descriptive methodology. In this study, the quantitative analysis helped the researcher to explain the EFL learners' perceptions regarding the use of self-regulated strategy use and its effectiveness in learning the target language with the help of the questionnaire survey. Creating valid and reliable questions that address the research objectives, arranging them in a useful order, and selecting an appropriate method of administration are all part of the questionnaire design process (DeVellis, 2003).

3.3 Participants

The participants of this study were selected among the English learners in Iraq based on convenient sampling. One hundred and twenty Iraqi EFL learners participated in this study. The participants were male and female whose age range was between 18 and 32. They studied in Maysan, College of Basic Education, English Language department. They speak Arabic as their native language. Prior to the study, the participants were briefly instructed about the constructs of the questionnaires. They were ensured that their information was kept totally confidential, and their results would be sent to their emails if they wanted.

3.4 Instruments

In this study, three written questionnaires were used for data collection.

3.4.1 Self-Regulation Trait (SRT) Questionnaire

To measure self-regulation, the self-regulation trait (SRT) questionnaire designed by Seker (2016) was applied. It consists of two sections. The first section includes demographic questions such as age, gender, and majoring disciplines. The second section of the questionnaire has 43 items in a five-point Likert Scale style, from 'strongly agree' (1) to 'strongly disagree' (5). The questionnaire statements are classified into three categories: (a) orientation, (b) performance, and (c) assessment, and five subscales (i.e. internal orientation, external orientation, cognitive strategies, metacognitive strategies, and evaluation). The English version was used in this study. The reliability of the questionnaire was measured by Seker (2016) and found to be .75. In this study, the reliability of the questionnaire was checked using Cronbach alpha and it was shown to be .82.

3.4.2 Grammar Learning Strategy Use Questionnaire

Grammar learning strategy use questionnaire was designed by Gurata (2008). It consists primarily of two parts. In the first part, background information about the participants was sought. The second part of the questionnaire includes 35 statements of possible strategies that learners could use when learning and using grammar structures. The participants were expected to rate each item by considering two questions: (a) "How often do you use this strategy?" and (b) "I think this is a useful strategy (Even though I may not use it.)" A five-point Likert scale, ranging from never (1) to always (5), was used for the first question. On the other hand, a three-point Likert-scale was used for the second question: totally disagree (1), partly agree (2), and totally agree (3). The English version was used in this study. The reliability of the questionnaire was measured using Cronbach's alpha and it was shown to be .78.

3.4.3 Reflective Thinking Questionnaire (RTQ)

Regarding the purpose of this study in investigating the components of reflective thinking, the reflective thinking questionnaire (RTQ) developed by Kember, et al. (2000) was selected to collect data. It contains 16 items descriptive of the four types of reflective thinking advocated (Mezirow, 1991). The items are based on a five-point scale consisting (1) definitely agree, (3) only to be used if a definite answer is not possible, (5) definitely disagree. The components of RTQ include, for example: "in this course, we do things so many times that I started doing them without thinking about" (Habitual action); " to pass this course, you need to understand the content" (understanding); "I often reappraise my experience so I can learn from it and improve for my next performance" (reflection); and " this course has challenged some of my

firmly held ideas" (critical reflection). The English version was used in this study. Using the same instrument, Leung and Kember (2003) reported reliability estimates ranging from (0.58- 0.74) for the four subscales of the RTQ. The reliability of the questionnaire was checked in this study and the results showed an index of .76.

3.5 Procedure

Data collection was performed through a descriptive (survey) method of research. The data collection procedure was initiated by giving the three questionnaires to the participants of the study. Prior to the administration of the instruments, the participants were well-informed about the constructs of the study. First, SRT questionnaire was given to the participants and then RTQ questionnaire was distributed. Finally, they were asked to respond to the grammar learning strategy use questionnaire items. It took 30 minutes to answer each questionnaire. They were required to fill out the questionnaire and give it back to their managers.

3.6 Data Analysis

Data were analyzed using Pearson correlation to investigate the relationships between EFL learners' self-regulation, reflective thinking and their grammar language learning strategies. Mean and Standard Deviation of questionnaire items were also calculated. Multiple regression was used to predict EFL learners' grammar learning strategies from their self-regulation components.

Chapter Four

Results

4.1 Introduction

This chapter has been allocated to the statistical procedures that the researcher used following gathering the necessary data to answer the research questions of the present study. For the purpose of this study, the researcher focused on finding the variable relationships by utilizing descriptive data analysis, as well as inferential data analysis. In other words, the researcher intended to illustrate statistically how the condition of the subjects participating in this study based on the variables was affected or changed.

4.2 Restatement of the Research Questions

The present study aimed at investigating the relationship between EFL learners' self-regulation, reflective thinking, and their predictive ability concerning EFL learners' grammar learning strategy use. Thus, the following research questions were posed:

1. Is there any significant relationship between Iraqi EFL learners' self-regulation strategy use and their grammar learning strategy use?
2. Is there any significant relationship between Iraqi EFL learners' self-regulation and reflective thinking?
3. Which component of EFL learners' self-regulation is a significant predictor of their grammar learning strategy use?

4.3 Reliability of the Questionnaires

The reliability of the questionnaires was measured using the Cronbach alpha formula. The results are shown in Table 4.1.

Table 4.1

Reliability statistics of the questionnaires

	N of Items	Cronbach Alpha Based on Standardized Items
Self-regulation strategy questionnaire	43	.907
Grammar Learning Strategy Use	35	.843
Reflective thinking	16	.822

The results demonstrate that Cronbach's alpha for the self-regulation strategy, grammar learning strategy use and reflective thinking questionnaires were .90, .84 and .82, respectively. According to DeVellis (2003), a Cronbach's alpha coefficient above .70 is preferable. Therefore, the questionnaire showed a high internal consistency and it was reliable.

4.4 The First Research Question

Descriptive statistics of EFL learners' performance on the self-regulation strategy questionnaire and grammar learning strategy use questionnaire are obtained and shown in Table 4.2.

Table 4.2

Descriptive statistics of EFL learners' performance on self-regulation and grammar-learning strategy questionnaires

	Self-regulation	Grammar Learning Strategy Use
N	120	120
Mean	116.25	78.16
Std. Error of Mean	1.74	2.19
Std. Deviation	15.567	19.584
Range	148	71
Minimum	32	54
Maximum	180	125

A one sample Kolmogorov Smirnov test on both questionnaires was conducted in order to find whether the distribution of the scores in the questionnaires was normal or not. The results are presented in Table 4.3.

Table 4.3

One-sample Kolmogorov-Smirnov of the self-regulation and grammar-learning strategy questionnaires

		Self-regulation	Grammar Learning Strategy Use
N		120	120
Normal Parameters ^{a,b}	Mean	116.25	78.16
	Std. Deviation	15.567	19.584
Most Extreme Differences	Absolute	.204	.126
	Positive	.131	.086
	Negative	-.204	-.126
Kolmogorov-Smirnov Z		1.205	.744
Asymp. Sig. (2-tailed)		.110	.637

As Table 4.3 shows, the most extreme differences between the scores is not significant. The measured significance level for the distribution of data between self-

regulation and grammar learning strategy use questionnaires was higher than the assumed level of significance (i.e., 0.05); thus, it can be concluded that there was no significant difference between the observed distribution of selected scores and they are normally distributed.

In order to investigate the first research question in finding the relationship between Iraqi EFL learners' self-regulation strategy use and their grammar learning strategy use, a Pearson correlation was performed between the participants' self-regulation and their grammar learning strategy use. The results are shown in Table 4.4.

Table 4.4

Pearson correlation between the participants' self-regulation and their grammar learning strategy use

		Self- regulation	Grammar learning strategy use
Self- regulation	Pearson Correlation	1	.644**
	Sig. (2tailed)		0.00
	N	120	120
Grammar learning strategy use	Pearson Correlation	.644**	1
	Sig. (2tailed)	0.00	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 4.4., the Pearson correlation between the EFL learners' self-regulation strategy use and their grammar learning strategy use is .644, and the p-value is .000 (p is significant at the 0.01 level); hence, the results reported a significant positive relationship between the two variables. In other words, the more Iraqi EFL learners experience self-regulation, the higher is their use of grammar learning strategies. Therefore, the first research question of the study is verified and there is a

statistically significant relationship between EFL learners' self-regulation and their grammar learning strategy use.

4.5 The Second Research Question

Descriptive statistics of EFL learners' performance on the reflective thinking questionnaire and self-regulation questionnaire are obtained and shown in Table 4.5.

Table 4.5

Descriptive statistics of EFL learners' performance on self-regulation and reflective thinking

	Reflective thinking	Self-regulation
N	120	120
Mean	38.214	116.25
Std. Error of Mean	1.235	1.74
Std. Deviation	8.158	15.567
Range	48	148
Minimum	18	32
Maximum	66	180

A one-sample Kolmogorov-Smirnov test on both questionnaires was conducted in order to find whether the distribution of the scores in the questionnaires was normal or not. The results are presented in Table 4.6.

Table 4.6*One-sample Kolmogorov-Smirnov of the self-regulation and reflective thinking*

		Self-regulation	Reflective thinking
N		120	120
Normal Parameters ^{a,b}	Mean	116.25	78.16
	Std. Deviation	15.567	19.584
Most Extreme Differences	Absolute	.204	.126
	Positive	.131	.086
	Negative	-.204	-.126
Kolmogorov-Smirnov Z		.862	1.205
Asymp. Sig. (2-tailed)		2.00	.110

As Table 4.6 shows, the most extreme differences between the scores is not significant. The measured significance level for the distribution of data between reflective-thinking and self-regulation questionnaires was higher than the assumed level of significance (i.e., 0.05); thus, it can be concluded that there was no significant difference between the observed distribution of selected scores and they are normally distributed.

In order to investigate the second research question in finding the relationship between Iraqi EFL learners' reflective thinking and their self-regulation, a Pearson correlation was performed between the participants' reflective thinking and their self-regulation strategy use. The results are shown in Table 4.7.

Table 4.7*Pearson correlation between the participants' reflective thinking and their self-regulation*

		Reflective thinking	Self-regulation
Reflective thinking	Pearson Correlation	1	.539**
	Sig. (2tailed)		0.00
	N	120	120
Self-regulation	Pearson Correlation	.539**	1
	Sig. (2tailed)	0.00	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

As shown in Table 4.7., the Pearson correlation between the EFL learners' reflective thinking and their self-regulation strategy use is .53, and the p-value is .000 (p is significant at the 0.01 level); hence, the results reported a significant positive relationship between the two variables. In other words, the more Iraqi EFL learners use reflective thinking, the higher is their use of self-regulation strategy. Therefore, the second research question of the study is verified and there is a statistically significant relationship between EFL learners' reflective thinking and their grammar learning strategy use.

4.6 The Third Research Question

In order to verify the third research question of the study in finding which component of self-regulation is a significant predictor of Iraqi EFL learners' grammar learning strategy use, a regression analysis was performed. The details of the analyses are provided in the following tables .

Table 4.8 provides the extent to which all of the independent variables (components of self-regulation) account for variability in the dependent variable (EFL learners' grammar learning strategy use) together.

Table 4.8

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.547 ^a	.694	.692	21.45331
a. Predictors: (Constant), internal orientation, external orientation, cognitive strategies, metacognitive strategies, evaluation				

As Table 4.8 shows, the coefficient of multiple correlations is presented in the "R" column. R is the measure of the prediction of the dependent variable; in this case, EFL learners' grammar learning strategy use. A value of 0.54 indicates a high level of prediction. The "R Square" or R^2 value is the proportion of variance in the grammar learning strategies that can be explained by the independent variables (i.e., components of self-regulation). It indicates that the EFL learners' grammar learning strategy use can explain 69% of the variability of their self-regulation.

In order to determine whether the provided model (components of self-regulation as independent variable and EFL learners' grammar learning strategy use as dependent variable) is a good fit for the data, a one-way ANOVA was performed. The results are shown in Table 4.9.

Table 4.9*ANOVA of regression model*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	484066.395	1	484066.395	1051.75	.000 ^b
	Residual	124726.316	271	460.245		
	Total	608792.711	272			

a. Dependent Variable: grammar learning strategy use

b. Predictors: (Constant), internal orientation, external orientation, cognitive strategies, metacognitive strategies, evaluation

The F value in Table 4.9 shows the fitness of the overall regression model for the data. The result showed that ($F = 1051.75, p < .05$) p -value is lower than the assumed level of significance (i.e., 0.05); therefore, the EFL learners' individual characteristics can significantly predict their self-regulation (i.e., the regression model is suitable for the data).

Table 4.10 shows information about the model coefficients. The general form of the model is to predict EFL learners' grammar learning strategy use from their individual characteristics.

Table 4.8*Coefficients^a of the model*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	124.812	20.229		6.170	.000
	internal orientation	.489	.078	.074	6.248	.058
	external orientation	.028	.034	.073	3.806	.062
	cognitive strategies	.285	.298	.080	2.958	.041
	metacognitive strategies	1.377	.648	.577	2.125	.000

evaluation	.959	.697	.221	1.375	.173
a. Dependent Variable: grammar learning strategy use					

Unstandardized coefficients in the above table show how much EFL learners' components of self-regulation vary with their use of grammar learning strategy use when the other independent variable is constant. As can be seen in the above table, the learners' metacognitive strategies ($b = .57, t = 2.12, p < .05$) is the most significant predictor of their grammar learning strategy use which would indicate that larger use of the learners' metacognitive strategies is related to higher use of grammar learning strategy use .

Chapter Five

Discussion and Conclusion

5.1 Introduction

This chapter presents the interpretation of the study results in order to answer the research questions of the study and compare them with the findings of previous studies. Final thoughts on the results of the study are provided in the conclusion section. Theoretical and pedagogical implications of the study are put forward in this chapter and a number of limitations and recommendations are provided for future studies.

5.2 Discussion

5.2.1 The First Research Question

The present study aimed at investigating the relationship between EFL learners' self-regulation, reflective thinking, and their predictive ability concerning EFL learners' grammar learning strategy use. In doing so, 120 EFL learners were asked to answer the items of the self-regulation trait, Grammar learning strategy use, and reflective thinking questionnaires. The first research question investigated the relationship between EFL learners' self-regulation and grammar learning strategy use. The results of the Pearson correlation showed that there is a statistically significant relationship between Iraqi EFL learners' self-regulation and their grammar learning strategy use.

According to El-Henawy, et al. (2010), it has been proven that self-regulation is a complicated, recursive process that heavily depends on a person's deliberate, interactive attempts to enhance their own learning through the use of a range of cognitive, metacognitive, resource management, and motivational strategies. The features of self-regulated learners, self-regulated learning techniques, and self-

regulated processes were also discussed in this research. By creating and developing learning environments that encourage self-regulated learning, educators might consider such processes to be beneficial because they are linked to academic achievement and performance. In addition, guidelines for creating a successful self-regulated learning environment were provided for educators to utilize when integrating self-regulation assistance into lessons.

In fact, the self-regulation model provided EFL learners with a road map for grammar learning. It reminded them of carrying out the steps during grammar learning. Moreover, in the self-regulation group, the instructor moved away from a traditional grammar learning class to a learner-centered class where she focused on the learners' preferences and encouraged them to take more personal responsibility for their own grammar learning performance. The EFL participants were encouraged to play an active role in shaping their learning. In fact, self-regulation instruction made learning faster, better, and more effective. In fact, the strategies used in the self-regulation group enabled the EFL learners to achieve their learning potential and become individuals who managed their grammar learning strategy use.

If the school wants to eventually help students regulate their learning independently and provide them the tools to continue studying after finishing their official education, it is imperative that self-regulation teaching be incorporated into the formal education curricula (Boekaerts, 1997). Being self-regulated can support important language acquisition practices both within and outside the classroom, especially for students with little prior experience learning a language. According to research (e.g., Oxford, 2011, Zimmerman, 2000), language learning strategies are

teachable and offer useful tasks for classroom instruction. They also serve as excellent illustrations of the beneficial effects that teacher preparation programs can have on encouraging the use of self-regulation strategies.

One of the significant studies which is supported by this study was conducted by Perry, VandeKamp, Mercer, and Nordby (2002) who examined how self-regulation functions in a classroom setting. Teachers were observed in their classrooms as part of a program the researchers designed for them. The findings of this implementation showed that young learners' language acquisition was improved when they developed self-regulation methods. According to Perry et al. (2002), teachers who have received training and support in promoting self-regulation strategies in their classrooms are better able to: (1) implement frameworks that enable learner progression; (2) offer opportunities for student learning choices; (3) offer instrumental and ongoing support to learners; and (4) employ ongoing and motivating evaluation.

This finding can support those of Ammar (2004) looked at how a recommended self-regulation-based curriculum affected the reading motivation and critical reading abilities to aspire Iraqi EFL instructors. The study's conclusions showed that, when compared to conventional reading training methods, students' self-regulation of their EFL reading led to considerable improvements in both their critical reading abilities and their motivation to read in English as a foreign language. Moreover, Koehler (2007) carried out research using a qualitative, classroom-based approach. Eight ESL secondary students who are categorized as having high intermediate or advanced English proficiency made up the study's sample. According to the study, students'

knowledge of their own effectiveness increased as a result of the inclusion of self-regulated learning techniques teaching for reading in the ESL secondary curriculum.

5.2.1 The Second Research Question

The second research question of the study searched to find a significant relationship between Iraqi EFL learners' reflective thinking and their self-regulation. By utilizing the Pearson correlation, it was found that there is a statistically significant relationship between EFL learners' reflective thinking and their self-regulation strategy use. When it comes to possible explanations, as Rezaei and Almasian (2007) conceded, it seems plausible to presume learners who enjoy reflective thinking are more successful in finding and inventing methods and strategies to improve their learning. Additionally, the results of this study confirm the findings of Rezaei and Almasian (2007) , who found that there was a positive relationship between reflective thinking and both the extent of use of language learning strategies and language proficiency. They concluded that the learners with a higher level of reflective thinking employ more strategies and, as a result, are better learners of English .

Indeed, learners are passive in the teacher-centered pedagogy, and there is no room for them to acquire critical-thinking and reflective thinking. This may be because the teachers themselves do not reflect on and examine their behavior and activities; they do not think reflectively or disregard the need of doing so . A tight set of rules are simply posted for the class's observance, and group work, cooperation, learner needs, individual variations, and emotional aspects are all ignored. Being the person in charge of the class, the instructor chooses to give a lecture to the pupils in order to share his or her knowledge and experience. The major objective of learner-centered pedagogy, in

contrast, is to help students become autonomous and accountable. This aim cannot be achieved until the students have developed the ability to think reflectively. According to Condelli, Wrigley, and Yoon (2009), peer to peer contact and cooperative learning have become more prominent. Facilitator and delegator teaching methods enable indirect instruction and productive learning (Serin, 2018).

The result of the study is in line with that of Safari, Davaribina and Khoshnevis (2020) who found that there was a statistically significant positive relationship between Iranian EFL teachers' reflective thinking and self-regulation. The result of the study is in line with that Choy, Yim and Tan (2017) who found that there was a statistically significant positive relationship between EFL teachers' reflective thinking and teachers' self-regulation and reflective thinking led to self-efficacy, self-assessment and teaching awareness, all of which are traits of competent teachers.

The results of this study support those of Zhang et al . (2020), who examined the relationship between reflective thinking, teaching, and learning styles and came to the conclusion that reflective thinking presents tremendous potential for both instructors and students to change their teaching and learning approaches. In addition, the findings of the present study are consistent with a previous qualitative study (Elias, Hamzah, & Razak, 2019) that found that higher-order thinking abilities are essential tools for assisting students in becoming creative and reflective in a learner-centered framework.

This finding is consistent with Phan's (2010) theoretical analysis of reflective thinking and self-regulation in the context of education, which suggested a close link between these two ideas. Likewise, Ghanizadeh (2011) supported the

interconnectedness of reflective thinking and self-regulation. Similar to this, Gurcay and Ferah (2018) looked at how students' reflective thinking and metacognitive self-regulation are related. Their findings showed a strong and favorable correlation between reflective thinking and metacognitive self-regulation. Vardi (2015) underlines the vital impact of reflective thinking on learners' achievement with the aid of self-regulatory skills in a similar vein. The statistical results of this study further confirm Pintrich's (2000) assertion that instructors become stronger reflective thinkers as their engagement in critical thinking increases.

5.2.1 The Third Research Question

The third research question sought to find which component of EFL learners' self-regulation is a significant predictor of their grammar learning strategy use. The results of multiple regression showed that the learners' metacognitive strategies is the most significant predictor of their grammar learning strategy use which would indicate that the larger use of the learners' metacognitive strategies is related to higher use of grammar learning strategy use.

This association can be attributed to the mediating function of a number of variables since EFL learning is a complicated phenomenon in which several factors play a substantial role. According to Sadeghy and Mansouri's (2014) study, one of these factors may be the importance of learning techniques, which are strongly tied to the concepts of self-regulation and self-regulated learning. According to Tavallai and Marzban (2015), self-regulated learning has a big impact on learners' autonomy, which is another component that may be referred to as a mediating factor. As autonomy was

constantly mentioned as one of the most crucial elements in learning English as a foreign language, its mediating function cannot be readily disregarded.

Additionally, the results of the current study might be justified by the mediating function of cognitive strategy usage, which was shown to be highly connected with self-regulated learning in the study by Pintrich and De Groot (1990). As claimed by Mizumoto, self-efficacy is another component that influences the link between self-regulated learning and vocabulary learning and retention (2013). According to Mizumoto (2013), there is a strong correlation between the self-regulated learning process and learners' self-efficacy. Last but not least, it is appropriate to credit the findings to motivation's mediating function because it has been demonstrated to be strongly connected with self-regulation (Lavasani & Hejazi, 2011).

Self-regulation instruction improved the EFL participants' reflective thinking by making them metacognitively aware of their cognitive processes, monitoring, analyzing, and evaluating their grammar learning. It is vital for L2 teachers to be aware of the importance of developing an optimal positive estimation of language learners' reflective thinking because reflective thinking can be interpreted as an integral process of metacognition. In other words, the EFL participants' reflection on the learning process led to increasing metacognitive knowledge (knowledge about cognition) and skills (regulation of cognition).

Given that self-regulation serves as a magnifying glass trigger for self-awareness, self-reflection, self-monitoring, self-control, and self-evaluation, teachers may keep an eye on their behavior and make changes as needed with the help of this self-help tool. They, therefore, view themselves as a facilitator and delegator to

support effective and collaborative learning rather than the formal authority and expert model in the class. Therefore, both of them are necessary for successful and effective pedagogy .

The findings of the current research support Bandura's (1986) theory of reciprocal determination and the concept of *agency*, which postulates that people, their behavior, and the environment in which they act reciprocally influence one another. The individual's ability to exert agency presupposes their awareness of what they do and their ability to develop strategies to control and regulate it. As Yun (2008) states , “reflection makes it possible for learners to utilize their metacognition knowledge about a task, self, and strategies during each stage of the regulator (carryover) process, planning, monitoring, and evaluating” (p. 26). In this light, the self-regulation instructional approach proved to improve the learners' reflective thinking.

Objectives are necessary to give strategic learners a point of reference for ongoing self-evaluation. Their choice of strategies and how they carry them out may be influenced by the types of goals they establish. These results are consistent with research by Radosevich, Vaidyanathan, Yeo, and Radosevich (2004) and Dehghani (2005) that found a relationship between goal orientation and learning self-regulation. According to this, students may influence their own learning by selecting accomplishment objectives that maximize their capacity for self-regulation. Yet, according to Zimmerman (2000), self-regulated learners are proactive in using tactics to meet their own personal objectives.

This study supported the results of Oxford (1990), Hong-Nam and Leavell (2006), Rahimi, Riazi, and Saif (2008), and Salahshouret al. (2013) in a way that

metacognitive strategies are superior in language achievement. Ruan (2005, p. 175–6) notes that, although the phrase is rarely used, research on writing within the cognitive framework reveals that experienced writers' producing processes entail significant amounts of self-regulation and metacognitive control. In L2 writing research and education, which generally place more emphasis on the growth of student writers' linguistic competence than on the maturation of mature composing processes, this self-regulatory aspect of writing has, however, received less attention. Mourad (2009) investigated the impact of a self-regulation-based program on the growth of writing abilities among Kafr El-Sheik first-year secondary school students who struggle with their English language writing. Three training sessions, each lasting 40 to 45 minutes, were given to students each week. Findings showed that self-regulation was successful in enhancing students' writing abilities. According to the study, educators should choose a model (like self-regulation) that caters to students' interests and tests their skills through its different modalities.

In summary, a quick review of the literature on critical thinking (Ennis, 1996; Phan, 2010) and the theoretical foundations of self-regulation (Pintrich, 1999, 2000; Schunk & Zimmerman, 1994; Zimmerman, Bonner, & Kovach, 1996) reveals that the two constructs can be seen as mirror images of one another.

5.3 Conclusion

The current study attempted to evaluate how much grammar learning strategies may have a role in learners' learning in general and their grammar performance in particular. The primary goal of this study was to discover any significant relationship between grammar learning strategies, including cognitive, metacognitive, social, and

emotional strategies, and EFL learners' grammar performance. Based on the findings of this study, self-regulation strategies are associated strongly with learners' use of grammar learning strategies. The present study examined the relationship between self-regulation and grammar learning strategy use of Iraqi EFL learners. The results of the present study showed the use of self-regulation instruction played an important role in improving learners' grammar learning strategy use. The self-regulation strategy helps EFL learners recognize the use of strategies for grammar learning and improve the quality of their L2 performance. It pushed the EFL learners to initiate and direct their own efforts to acquire new knowledge, skills, and strategies rather than relying on their teacher .

Taken together, the current study's findings highlighted the relationship between Iraqi EFL learners' reflective thinking and their grammar learning strategy use. Therefore, it may be anticipated that the targeted instruction on certain techniques and, hence, the students' knowledge of diverse strategies can possibly alter their capacity for grammar learning. Reflective thinking can improve the participants' grammar learning strategy use. Reflective thinking could be interpreted as an integral process of metacognition in that reflection could make it possible for the EFL learners to being metacognitively aware of their cognitive process and monitor , analyze, and evaluate their grammar knowledge . Reflective thinking could be interpreted as an integral process of metacognition in that reflection could make it possible for the EFL learners to being metacognitively aware of their cognitive process and monitor , analyze, and evaluate their grammar knowledge.

It is becoming more and more crucial for students to be able to actively assess and enhance their own learning . Successful people must be lifelong learners who can properly evaluate their learning and who are metacognitive about the continually changing environment. Students who lack the capacity to retain tenacity and focus their attention will continually be pushed left and right by their initial inclinations inside the educational system . In addition, students who do not understand self-evaluation techniques will not be able to focus their attention on the areas that really need it. Self-regulation enables learners to manage these settings by coming up with solutions that work, even if some students may view tough books, complex lessons, or bad study surroundings to be insurmountable challenges.

Self-regulation not only strengthens the learning material but also helps one establish personal responsibility for one's education. Self-regulation techniques enhance the encoding of information and abilities in memory, particularly for grammar ability in writing and reading comprehension. Self-regulation techniques have also been linked in research to enhanced effort and motivation on the part of students, better test results, and general classroom readiness.

Based on the findings of this study, the learners' use of metacognitive strategies was able to strongly predict the variance in their grammar learning strategy use. The results of the present study have significantly supported the idea that learners' self-regulation strategies would influence their reflective thinking and grammar learning. The participants of the study were significantly homogeneous regarding their attitudes towards their self-regulation strategies, reflective thinking and grammar learning strategy use.

5.4 Pedagogical Implications

The results of the present study provide light on the role that reflective thinking and teacher self-regulation play in the development of grammar pedagogy, particularly in the setting of Iraqi EFL instruction. The advantage of reflective thinking for enhancing self-regulatory actions was also emphasized. The consequence is that EFL teachers who are equipped with self-control techniques and reflective thinking abilities choose student-centered teaching approaches that raise the level of education. In other words, instructors may overcome the obstacle of viewing themselves as the dominating authority in the classroom with little opportunity for student interaction or cooperation by using reflective thinking and self-regulation techniques. In order to build the groundwork for good teaching and, by extension, effective learning, and this implication may be used in pre-service and in-service educational programs. This study also raises a few pertinent questions for academics, politicians, and researchers.

The findings of this study have a number of important implications for teachers, educational policymakers, and curriculum developers . Teachers should consider the role of reflective thinking and self-regulation in learners' use of grammar learning strategies. As a result , teachers can provide opportunities for learners to use the grammar learning strategy more effectively. Therefore, it would undoubtedly help language teachers recognize individual differences among language learners , perhaps leading to the establishment of a learner-centered classroom .

To succeed in grammar acquisition, EFL learners must apply a variety of self-regulation strategies in addition to memorization strategies. Thus, EFL teachers can refer to the list of strategies and create relevant projects to help their students practice self-regulated grammar learning, particularly the metacognitive strategies.

This study's findings may be useful to other EFL learners and teachers throughout the world whose educational system is built on memorizing rather than evaluating and synthesizing new concepts. In reality, increasing one's linguistic and academic success requires a variety of cognitive, metacognitive, and socio-affective strategies. Being reliant on certain strategies will not assist pupils in expanding their understanding of many parts of the language or any other scientific discipline.

The findings of the present study tend to direct the attention of teachers of EFL courses and course designers toward the importance of using self-regulation as a possible way to move away from traditional instructions to process-oriented strategies to develop EFL learners' grammar .

Along with EFL students, teachers must become acquainted with several sorts of strategies to aid both themselves and students in the learning process. Teachers who are well-versed in strategies might give homework and assignments that need the use of certain strategies. This tactic is more beneficial in situations where pupils are unwilling to employ a certain strategy for the sake of convenience. An excellent example of a grammar learning method is composing an email or a letter, which is not a favorite learning approach among students but is quite effective. The final implication concerns educational authorities and textbook authors.

It is the responsibility of higher authorities in an educational system to teach various strategies. In reality, an educational system should give students not only materials to study but also approaches and strategies to utilize in order to get suitable outcomes. In this regard, writers are advised to make use of the supplied approach categories and devote specific portions of their books to introducing beneficial learning strategies that are followed by appropriate activities. As a result, both instructors and students will become aware of the strategies and adjust their study methods, thereby raising the quality of the educational system. To top it all off, high school English instructors may utilize the established instrument to evaluate the performance of the grammar strategy intervention by assessing their students' self-regulation strategy use.

5.5 Limitations of the Study

There were unavoidable limitations in conducting the present study . For instance, although the sample was fairly large , caution must be applied , as the findings might not be transferable to all EFL learners, and this may restrict the generalizability of the results . Therefore, further research with more representative samples needs to be undertaken in order to expand on the findings presented in the present study .

Furthermore, the researcher only used questionnaires to collect the data; to be more inclusive, data collection instruments like observation or interviews can be added, as well . Future researchers are recommended to adopt the mixed methods approach to explore the association of Iraqi EFL learners' reflective thinking and their use of grammar learning strategies. In fact , their application of interviews and class observation can add weight to the results and conclusions of the study .

5.6 Suggestions for Further Research

This study provides some recommendations for future studies. In the self-regulation framework, learners' own initiatives and actions are more important than the effects of direct instruction on their learning, which may make interpreting the results more difficult, and any generalizations made without considering the true causes should be done with caution. As a result, using more qualitative research methods, such as conducting (in-depth) interviews, might have offered additional insights into the grammar learning behavior of individual learners, allowing us to interpret the study's findings with greater confidence.

The current investigation is a step and further research is indeed required with a larger sample size , L2 learners from both genders with different proficiency levels, and other measurement instruments to make stronger generalizations. Likewise, future research can investigate the effects of self-regulation instruction on other language skills .

The ideas and models of self-regulation covered in this study need to be explored in a number of areas that require more empirical investigation. Little research have been conducted to date on the impact of self-regulated learning practices on Iraqi EFL students' academic performance. In order to treat learning challenges among struggling and underachiever students, this study promotes the need to employ self-regulated learning practices. As a result, the author makes the following suggestions for more study:

- replicating self-regulation research with EFL students in an Iraqi setting.
- examining how students with a foreign language learning difficulty respond to self-control.
- comparing the self-control of EFL students who do poorly and those who perform well.
- expanding studies on EFL students' requirements for self-efficacy.
- doing more studies on EFL metacognition and motivation

Further studies are required to adopt mixed-method approaches and to triangulate data by means of employing other instruments such as class observations and focused interviews . More studies are also suggested to investigate the direction and the strength of the relations between the variables and their subcomponents via structural equation modelling (SEM) . Furthermore , the data supported gender's debilitating effect on learners' usage of grammar learning strategies. Overall, the outcomes of this study justify further investigation into the link between learners' grammar learning strategies utilization.

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APPENDIX A

Self-Regulation Questionnaire

Items	strongly agree	agree	neutral	disagree	strongly disagree
1. I am learning English because my department requires it.					
2. I know what is important to learn when studying English					
3. When studying English, I can concentrate for a long time.					

4. When the study material is difficult, I ask for assistance.					
5. I am learning English because my teachers require it.					
6. When studying English, if my friends call me, I give up work and go.					
7. I evaluate my overall English progress.					
8. When studying English, I translate everything into Turkish.					
9. I am learning English because my society wants it.					
10. I can find enough time to study English.					
11. When the study material is difficult, I give up studying.					
12. When studying English, I understand the tasks.					
13. I am learning English because my future job requires it.					
14. I evaluate my exam results.					
15. I can find enough time to do my homework.					
16. When studying English, I can use my materials efficiently.					
17. I am learning English because I want to communicate with foreigners					
18. When my English progress drops, I study more.					
19. I am satisfied with my English progress.					
20. When studying English, I find outside school sources to help me.					
21. I am learning English because I want to be successful in life					

22. I believe I can overcome my learning difficulties.					
23. When the study material is difficult, I skip it and find an easier one.					
24. I am learning English because I want to be successful in my future job.					
25. When studying English, I work on the tasks in order of importance.					
26. I can find enough time to revise for my English exams.					
27. I am learning English because I want to be able to use technology better					
28. When studying English, I plan my study ahead.					
29. When the study material is difficult, I search for alternative ways to understand and complete it.					
30. I am learning English because I want to feel successful at it.					

APPENDIX B

Grammar Learning Strategy Use Questionnaire

The class and course level you are enrolled in:

Age:

Gender (please circle): M F

Do you think grammar is important? Y N

Below, you will find statements about the strategies you might use when learning or using grammar structures. Please read each statement carefully, and answer the questions given on the right by circling your choice.

	How often do you use this strategy?					I think this is a useful strategy. (Even though I may not use it.)		
	never	seldom	sometimes	usually	always	totally agree	partly agree	disagree
1. When I learn a new grammar structure, I try to associate it with other structures that I already know.	1	2	3	4	5	1	2	3
2. When I learn a new grammar structure, I try to classify it under a group of similar things (e.g. verbs, tenses, etc).	1	2	3	4	5	1	2	3
3. When I learn a new grammar structure, I compare it with my own language by thinking of its equivalent in my native language.	1	2	3	4	5	1	2	3
4. When I see a new grammar structure, I use the context/situation, the dialogue, or the picture in order to understand its meaning.	1	2	3	4	5	1	2	3
5. When I see a new grammar structure, I examine the	1	2	3	4	5	1	2	3

parts of that structure.								
6. When I see a new grammar structure, I try to infer the rules about that structure.	1	2	3	4	5	1	2	3
7. If I do not understand my teacher's explanation of a new structure, I ask him/her to repeat.	1	2	3	4	5	1	2	3
8. If I do not understand my teacher's explanation, I ask my friends for help.	1	2	3	4	5	1	2	3
9. I take notes when my teacher explains a new grammar structure (e.g. I write down the meaning and the usage of the structure).	1	2	3	4	5	1	2	3
10. I use my own language to write the rules of a new grammar structure.	1	2	3	4	5	1	2	3
11. I underline, use different colors or capital letters to emphasize the important parts of grammar rules	1	2	3	4	5	1	2	3

and explanations.								
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	How often do you use this strategy?					I think this is a useful strategy. (Even though I may not use it.)		
	never	seldom	sometimes	usually	ways	total	percentage	average
12. I draw charts for the grammar rules I learn.	1	2	3	4	5	1	2	3
13. I think about the situations in which I can use the newly learnt grammar structures.	1	2	3	4	5	1	2	3
14. I say a new grammar structure to myself several times in order to memorize it.	1	2	3	4	5	1	2	3
15. I try to notice the new grammar structures that appear in a listening or a reading text.	1	2	3	4	5	1	2	3
16. I review the grammar structures I learn regularly.	1	2	3	4	5	1	2	3
17. I do grammar exercises at home.	1	2	3	4	5	1	2	3
18. I use grammar books in order to review or better understand new grammar structures.	1	2	3	4	5	1	2	3

19. I preview the grammar subjects that will be covered before coming to class.	1	2	3	4	5	1	2	3
20. I determine the grammar structures that I have trouble with and make an effort to improve them.	1	2	3	4	5	1	2	3
21. I examine the mistakes which my instructor has marked in a written assignment, and try to correct them.	1	2	3	4	5	1	2	3
22. I ask my teacher questions about his/her corrections of my grammatical mistakes.	1	2	3	4	5	1	2	3
23. I study grammar with a friend or a relative.	1	2	3	4	5	1	2	3
24. I write one or two sentences using the new grammar structure so that I can remember that structure.	1	2	3	4	5	1	2	3
25. I remember a new grammar structure by thinking of its location in the book (e.g. in the picture or in the dialogue), in my notebook,	1	2	3	4	5	1	2	3

or on the board.								
26. I remember a new grammar structure by thinking of the context/situation it was used in.	1	2	3	4	5	1	2	3
27. I try to practice a new grammar structure in speaking or writing.	1	2	3	4	5	1	2	3
	How often do you use this strategy?					I think this is a useful strategy. (Even though I may not use it.)		
	never	seldom	sometimes	usually	ways	total	partly	total
						all	re	all
						the	ly	the
						way		way
28. I write e-mails, letters or compositions in order to practice newly learnt grammar structures.	1	2	3	4	5	1	2	3
29. I try to combine the new structure with my previous knowledge to express new ideas or to make longer sentences.	1	2	3	4	5	1	2	3
30. I pay attention to grammar rules when I speak or write.	1	2	3	4	5	1	2	3
31. I try to notice my grammar mistakes and find out the reasons for them.	1	2	3	4	5	1	2	3

32. I ask good speakers of English to correct my grammar when I talk.	1	2	3	4	5		1	2	3
33. When my teacher corrects my grammar mistake, I repeat the correct form.	1	2	3	4	5		1	2	3
34. While writing or speaking if I am not sure of a grammar structure, I try to use another one.	1	2	3	4	5		1	2	3
35. I encourage myself to speak English even when I am afraid of making a grammar mistake.	1	2	3	4	5		1	2	3

Appendix C

The Questionnaire for Reflective Thinking

Guidance on completing this questionnaire

Please circle the appropriate letter to indicate the level of your agreement with statements about your actions and thinking in this course so far i.e. years 1 and 2 or in your previous studies if you are a direct entrant.

- A - definitely agree
- B - agree only with reservation
- C - only to be used if a definite answer is not possible
- D - disagree with reservation
- E - definitely disagree

NOW please read through the statements and respond quickly.

1 When I am working on some activities, I can do them without thinking about what I am doing	A	B	C	D	E
2 This course requires us to understand concepts taught by the lecturer	A	B	C	D	E
3 I sometimes question the way others do something and try to think of a better way	A	B	C	D	E
4 As a result of this course I have changed the way I look at myself	A	B	C	D	E
5 In this course we do things so many times that I started to do them without thinking about it	A	B	C	D	E
6 To pass this course you need to understand the content	A	B	C	D	E
7 I like to think over what I have been doing and consider alternative ways of doing it	A	B	C	D	E
8 This course has challenged some of my firmly held ideas	A	B	C	D	E
9 As long as I can remember handout material for examinations, I do not have to think too much	A	B	C	D	E
10 I need to understand the material taught by the lecturer in order to perform practical tasks	A	B	C	D	E
11 I often reflect on my actions to see whether I could have improved on what I did	A	B	C	D	E
12 As a result of this course I have changed my normal way of doing things	A	B	C	D	E
13 If I follow what the lecturer says, I do not have to think too much on this course	A	B	C	D	E
14 In this course you have to continually think about the material you are being taught	A	B	C	D	E
15 I often re-appraise my experience so I can learn from it and improve my next performance	A	B	C	D	E
16 During this course I discovered faults in what I had previously believed to be right	A	B	C	D	E
	Scale				

Item no.	Habitual action
1	When I am working on some activities, I can do them without thinking about what I am doing
5	In this course we do things so many times that I started to do them without thinking about it
9	As long as I can remember handout material for examinations, I do not have to think too much
13	If I follow what the lecturer says, I do not have to think too much on this course
	Understanding
2	This course requires us to understand concepts taught by the lecturer
6	To pass this course you need to understand the content
10	I need to understand the material taught by the lecturer in order to perform practical tasks
14	In this course you have to continually think about the material you are being taught
	Reflection
3	I sometimes question the way others do something and try to think of a better way
7	I like to think over what I have been doing and consider alternative ways of doing it
11	I often reflect on my actions to see whether I could have improved on what I did
15	I often re-appraise my experience so I can learn from it and improve my next performance
	Critical Reflection
4	As a result of this course I have changed the way I look at myself
8	This course has challenged some of my firmly held ideas

12	As a result of this course I have changed my normal way of doing things
16	During this course I discovered faults in what I had previously believed to be right

چکیده

مطالعه حاضر با هدف بررسی رابطه بین خودتنظیمی، تفکر تاملی و توانایی پیش‌بینی آن‌ها در مورد استفاده از راهبرد یادگیری دستور زبان آموزان زبان انگلیسی انجام شد. در انجام این کار، از 120 زبان آموز زبان انگلیسی خواسته شد تا به پرسشنامه‌های ویژگی خودتنظیمی، استفاده از استراتژی یادگیری دستور زبان و تفکر بازتابی پاسخ دهند. مشخص شد که بین خودتنظیمی زبان آموزان زبان انگلیسی و استفاده از استراتژی یادگیری دستور زبان ر آنها از نظر آماری رابطه معناداری وجود دارد. علاوه بر این، مشخص شد که بین تفکر بازتابی فراگیران زبان انگلیسی و استفاده از استراتژی خودتنظیمی آنها رابطه معناداری وجود دارد. در نهایت مشخص شد که راهبردهای فراشناختی فراشناختی مهم‌ترین پیش‌بینی‌کننده استفاده از راهبرد یادگیری دستور زبان است که نشان می‌دهد. استفاده بیشتر از راهبردهای فراشناختی یادگیرندگان با استفاده بیشتر از استفاده از استراتژی یادگیری دستور زبان مرتبط است.

کلید واژه ها: استراتژی خودتنظیمی، یادگیری دستور زبان، تفکر بازتابی

