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Contribution of Meta-Cognitive Competence in Preserving Student Self-Regulation in Algerian Higher Education: A Case from ENS of Laghouat

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Abstract

The processes of teaching and learning the English language have reached a globalized turn to the extent that educators and learners became highly exposed to teaching materials and classroom strategies to ensure long-life, independent, and self-guided learning. Ultimately, in a language class, learners may confront difficulty in understanding a literary text which can derive from the limited language proficiency, and presiding over lack of linguistic, cultural, and academic competence. In order to affirm this hypothesis and answer the question of the extent to which can self-directed learning be achieved and improved through metacognitive competence in performing a task in literature, this study aims at highlighting the effectiveness of incorporating certain innovative teaching activities and management practices, notably self-cognition and self-reflection on pursuing learners' metacognition in understanding a literary text. By adopting a quasi-experimental methodological design, this study uses a participant observation with twenty- six subjects at Higher College of Teachers of Laghouat, they are assigned into two groups to measure their level of meta-cognitive competence and self-regulation, and prove their impact on achieving independent learning in studying a literary text. Results assured learners' enthusiasm, high competence, and positive responses upon compiling metacognition and self-reflection which are not only learning strategies, but also learning paradigms for increasing learners' self-directed learning and performance in class. Further studies may include engaging in improving independent learning and self-regulation of post-graduated learners through compensation and memory-related strategies.

Keywords: Algerian EFL context,cognitive monitoring, educational psychology, literacy teaching, self-regulation

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Introduction

It is necessary to forward the place of using literature in ELT classrooms, which can be a motivating medium for language learning and a valuable material for language learners to practice language skills and stimulate their imagination. Besides, teaching literacy has perceived a considerable attention in the English language teaching context as an outstanding trait. It is viewed as teaching of a set of abilities and competencies which may lead to independent learning and allow learners use their prior and intellectual knowledge as context for new learning. The development of literacy at an early stage to EFL learners of higher education turns crucial in order to manage, analyze, criticize and synthesize multiple streams of simultaneous information. The degree to which students can make use of language to read and understand literary texts in all types is a key indicator of their ability to make and communicate meaning.

With the drastic change in society and development of technology in language and literacy teaching, today's learners may need the acquisition of meta-cognitive skills which will enable them to learn independently using their cultural, intellectual, and linguistic knowledge to another knowledge context as modern learning doesn't require learners to memorize subjects but to appreciate what they learn. Therefore, learners need methods and materials to understand it better and get familiar with the content, genres, and literary knowledge in order to understand better literature and not the contents of literature teaching. Learners do not need only to learn and memorize particular subjects; they need to apply it using their basic language skills, plans, and their management process. This will vehemently be related to learners' high order skills and types of thought which are directed thinking, non-directed thinking, and meta-cognition.

Metacognition belongs to different fields of study such as psychology and philosophy and associated with self-control, self-regulation, metacognitive awareness, beliefs, and skills. It refers to constructing prior metacognitive knowledge and regulation by developing metacognitive skills. It is the ability to reflect upon learners' own learning behavior and provide their awareness of their strategies, self-reflection and self-regulation. Therefore, by applying prior meta-cognitive knowledge, learners can achieve efficient self-guided learning. Learners can learn to think about their own thinking process and use their learning strategies that will help them adjust with their learning. (Altindag & Senemoglu, 2013) when teachers allow learners to use their basic skills and study independently, they can develop their competences and believe that autonomous learning is achieved; over and above, educationalists tempted to encourage their learners take responsibility of their own learning, which can reflect their metacognitive competence by being adaptive, reflective and able to cope with the literary text.

However, in the higher educational context of English language teaching in Algeria, independent learning has recently been given awareness through implementing instructional strategies for the sake of achieving learning autonomy and self-guided learning. The problem in the study can be contextualized through the way EFL learners can achieve self-regulation and independent learning. This yet can be achieved through co-operative learning, group discussion, planning, literature response, role-playing, self-assessment … etc. These are learning strategies selected independently by learners to use them efficiently to perform tasks to achieve the desired goals. These strategies have been instructional strategies or techniques, before being learning strategies, used by teachers to help learners become independent learners. Achieving independence

in learning is not an easy task because it requires basic skills of learners, readiness, selecting appropriate learning strategies, notably meta-cognitive including self-assessment, self-reflection, monitoring, self-editing … etc, so that learners can assume full responsibility of learning, and subsequently be independent and autonomous learners.

This study aims at exploring the effects of meta-cognitive competence of the learners in performing a task and on reaching independent learning progress in a literature class. Hence, prior to the aim of the study, the researcher tempts to identify the development of EFL learners' metacognitive strategies and skills through self-assessment and self-reflection for the sake of reaching self-guided learning. Depending on the main problem, we can raise the question of the extent to which can meta-cognition competence and meta-cognitive learning strategies contribute to improving and promoting self-directed and self- regulated learning in performing a task in a literature class. In this vein, learners who are exposed to meta-cognitive learning strategies and instructional strategies are more likely to be competent while studying a literary text. Therefore, a frequent use of self-assessment will provide authentic learning and high level of response towards reading, understanding, and analyzing a literary text, in addition to building readiness for planning the learners' own learning independently and making choices, setting goals, solving problems, monitoring, and self-evaluating the learning progress.

Review of Literature

Recently, in the English language teaching arena, the Constructivist learning theory has been around for attaining learners' active role in learning. They are encouraged to use their prior knowledge and the knowledge they seek to acquire and construct themselves. Tuysuz & Karakuyu (2008) For, in order to accomplish language tasks and perform activities in class, learners need to explore the role of their cognitive and meta-cognitive competence and performance of a given task along with monitoring, self-reflection, self-editing, and self-assessment. In effect, cognitive and metacognition aspects play a vital role in accomplishing cognitive tasks, as tasks and activities are determined by metacognitive decisions and actions. As (Lester & Garofalo, 1985) assume that cognitive performance depends on prior knowledge or input, and acquired knowledge or output, and control of that knowledge. Occasionally, researchers argued that meta-cognitive knowledge, regulation, and skills serve as a way of monitoring the learning process.

Andrew (2010) investigates that cognitive and metacognitive strategies can influence learning by helping learners develop their critical and cognitive ability to have an adequate understanding and have problem-solving and decision-making ability. As those strategies require basic metacognitive skills which make learners be self-directed and self-regulated in their learning. Shank (2017) by being aware of their own cognitive process, learners can measure their performance through self-assessment and self-evaluation. This can foster their metacognitive awareness in improving their prior knowledge regulation, as it enriches the learning setting which is appropriate to constructing and building their metacognition.

Learners need to conduct their learning in a regular and planned manner, as they need metacognitive awareness about accomplishing their tasks and performance. (Akin et al., 2007) However, metacognitive strategies are multidimensional and are used by teachers in order to help learners be self-guided and choose their appropriate learning strategy independently through

instructional strategies which can help them assume and construct their metacognitive awareness in class. Such instructional strategies are prior knowledge and regulatory skills, and appropriate learning setting to the use of metacognition. For that, learners are able to think about their own thinking process and apply learning strategies that will help deal with their learning and accomplish tasks.

Cognitive knowledge, according to Bloom's Taxonomy, has a facet of cognitive processes which incorporate six processes which are conveyed by remembering, understanding, applying, analyzing, creating and evaluating. (Anderson & Krathwohl, 2001, p. 268) Metacognition generally refers to thinking about thinking, taking into consideration the learner's knowledge, awareness, and control of one's own cognition and human cognition in general. As being a self-directed learner involves three cyclical stages or phases according to (Zimmerman & Campillo, 2003), as shown in figure 01.

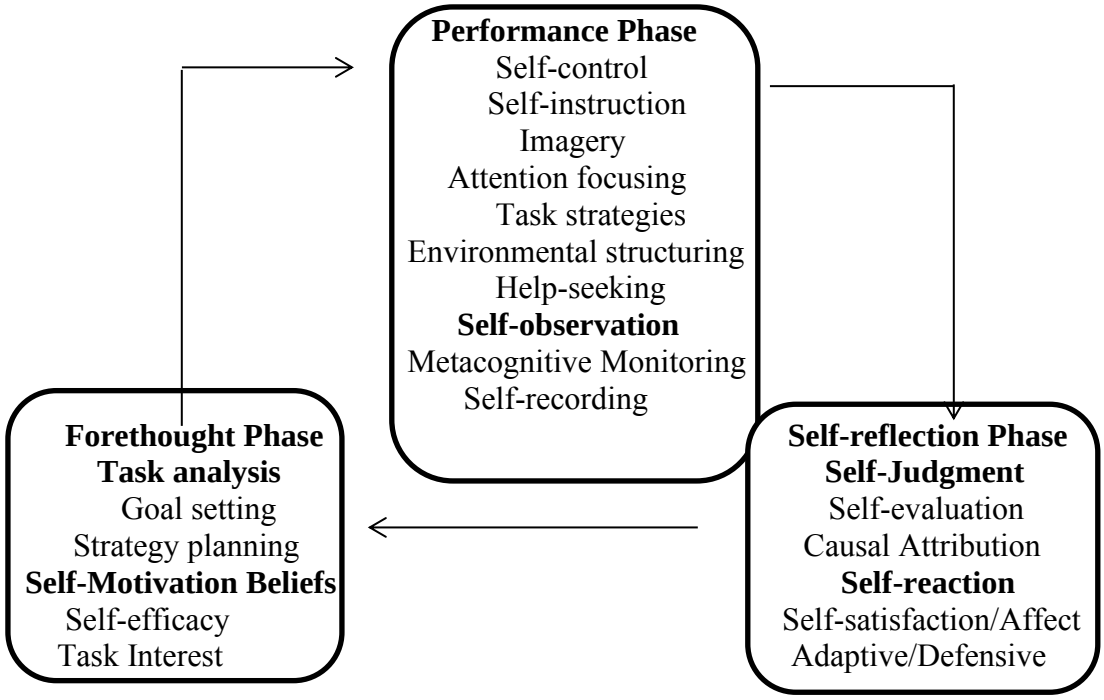

Figure 1 Cyclical Phases of Self-regulated Learning (Zimmerman & Campillo, 2003, p. 239)

Knowledge of cognition and regulation of cognition are parts of learners' cognition. Thus, as metacognitive knowledge and regulation serve as aspects of learners' cognitive development, meta-cognition can be enhanced through instruction in learning which can have the aim of achieving independent learning and can be developed through teaching; as (Akpunar, 2011) asserts that the role of metacognition in the learning process is persistent in helping learners accomplishing individual tasks and understanding learning abilities and independent learning skills.

In effect, meta-cognition is identified by Flavell (1976) as "one's knowledge concerning one's own cognitive processes and products or anything related to them and refers, among other

things, to the active monitoring and consequent regulation and orchestration of these processes … in the service of some concrete goal or objective" (p. 232) the learner can have understanding of knowledge and have a reflection on it by applying it effectively even they do not have an idea about how to use it. (Brown, 1987, p. 66) Metacognition also requires awareness of the learning process, learning evaluation, and building metacognitive strategies to learn. (Hacker et al., 2009).

Whitebread & Pino Pasternak (2010) view metacognition as "the monitoring and control of cognition, while self-regulation refers to the monitoring and control of all aspects of human functioning, including emotional, social, and motivational aspects" (p. 693) As meta-cognition is composed of executive functioning in particular academic contexts which is called metacognition, and self- regulation through which the learner is meta-cognitively, competent in his learning process and can apply more metacognitive strategies so that they can be autonomous and self-directed learners. They become more directed in activities, including questioning, planning, organizing, monitoring, and evaluating. Maxim (2009), by being self-regulated, learners can use metacognitive strategies and know how, where, and when to use them.

Recently, educationalists in the field of English language teaching have been giving considerate acclaim in exploring the role of cognitive monitoring in the accomplishment of cognitive tasks. They argue that metacognitive beliefs, decisions and actions are the keys for success or failure in a many tasks and activities. Effective cognitive performance depends on knowledge and control of that knowledge in order to be cognitively competent. Lester & Garofalo (1985) In other words, meta-cognitive skills of learners play a vital role in monitoring the learning process; as metacognitive awareness is significant in the academic success of learners. (Zhao & Mo, 2016) they can help learners be self-guided, and self-directed and self-regulated and more strategic learners. (Shank, 2017)

In English language teaching classes, the teaching and learning processes require approaches, techniques, methods, and strategies to accomplish tasks. Recently, the Constructivist theory has emphasized the role of the learner in class by having an active role in the learning process and being able to use their adequate prior knowledge through the implementation of their metacognitive skills. (Tuysuz et al., 2008) Metacognition can also serve as a strategy of learning, which refers to acquiring knowledge and skills based on the learner's self-perceptions and beliefs for achieving a particular goal. (Zimmerman & Pons, 1986)

According to (Kostons & Werf, 2015), metacognition is the ability to reflect upon one's own learning and behavior. It tempts to reveal awareness of the learner's strategies, knowledge, and self-regulation. Metacognition has a positive impact on learning as prior metacognitive knowledge of the learner can be highly effective when performing a task. However, learners' ability, readiness, and necessary skills can also be higher in those who have prior metacognitive experience. This can give the claim that prior knowledge is the most influential determinant towards the learning capacities of learners in the class.

Occasionally, it has been claimed that self-guided learning is necessary for improving learners' skills and preparing them for independent learning. As (Hennessey, 1999) identifies meta-cognition as "awareness of one's own thinking, awareness of the content of one's

conceptions, an active monitoring of one's cognitive processes, an attempt to regulate one's cognitive processes in relationship to further learning, and an application of a set of heuristics as an effective device for helping people organize their methods of attack on problems in general" (p.03) As Kuhn & Dean (2004) argue that metacognition can help learners use a particular strategy they learned in a given context and retrieve it in another new context through monitoring and self-regulation.

Learners can monitor and self-regulate their own cognition through metacognitive experience, a thing that can develop their meta-cognitive knowledge. In this vein, cognitive knowledge and cognitive regulation can be interrelated. (Schraw and Moshman, 1995) believe that in meta-cognitive theory, cognitive expertise and mental regulation are significant in which learners can construct cognitive ability and plan cognitive tasks. Further, (Martinez, 2006) asserts that metacognitive strategies can develop persistence and motivation during accomplishing challenging tasks. And learners can be able to monitor and appreciate their own cognition through metacognitive systems of their learning, namely monitoring, cooperation, classification, evaluation and assessment, and process management in which they can set favorable conditions and goals for their education.

In teaching and learning, learners need to develop metacognitive and basic language skills and be aware of their own cognitive activity and self-adjustment and strategies. This appeared recently with the shift from teacher-centered to learner-centered approaches which require a more active learning setting. For that, learners can be able to have independent choices, make decisions, solve problems, think critically, and construct knowledge. Ultimately, learners can acquire and learn new information and construct this new information through meta-cognitive skills and knowledge during learning tasks. As (Demirel, 2011) proves that metacognition is a theory through which learners can afford the knowledge they construct and the new knowledge using their own learning in new similar contexts.

Metacognitive competence can help in processing learning, as learners can plan, organize, and evaluate their learning. (Doganay, 1997) states that learners with metacognitive competence are aware of their learning processes and are able to control them, can make independent plans and choices, and organize learning tools, and make self-evaluation for assessing task results with effective metacognitions. In effect, learners can also solve problems, make decisions, and be aware of the learning strategies they choose, and evaluate their learning processes effectively. As (Everson & Tabias, 2002) think that learners can update their expertise and make independent choices and plans for new learning; however, they can be aware of their own cognition and cognitive ability.

Metacognition is related to the learner's reflection on his knowledge, experiences, and learning in all fields which are reflected by the learner's language awareness in three fields Language, Language learning and Language teaching. Metacognition in fact is associated with these three fields in language teaching. Moreover, metacognition is related to teachers' and learners' beliefs, the teaching and use of learning strategies, meta-linguistic, and inter-cultural awareness. In cognitive psychology, planning, monitoring and evaluation are categorized as the three determinants of self-regulated learning. Indeed, (Wenden, 1998) refers to learners'

knowledge about a particular content as domain knowledge. Therefore, domain knowledge is viewed as distinctive from metacognitive knowledge, but Wenden portrays the importance and equality of both domain knowledge and cognitive knowledge in accomplishing a task.

Learners can become aware of their own learning processes once they learn how to control these processes using their metacognitive skills (Thompson, 2007). Further, they will be strategic learners and have more autonomy than learners who are not aware of their meta-cognitive skills. As metacognitive strategies are keys to promoting metacognitive awareness for learners to become self-regulated and independent. According to O'Mally & Chamot (1990), metacognitive strategies also belong to higher order skills such as planning, organizing, monitoring, and evaluating the learning task.

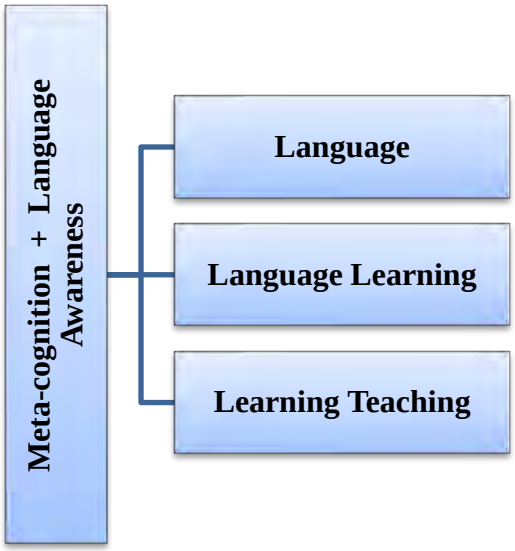

Figure 2 Metacognition's Relation to Language Awareness and its Subfields (Haukas, 2018, p. 15)

By using those strategies, learners can be more independent and self-directed. Further, these metacognitive strategies are self-regulated involve using mental activities and thinking about them, monitoring during learning, and evaluating after learning. They involve both cognitive and metacognitive strategies which can help learners control, monitor, and assess their own learning. (Zimmerman, 2008) Indeed, as (Schraw & Hartley, 2006) view self-evaluation, organizing, goal-setting, questioning, and planning, choosing information, awareness of strengths and weaknesses for success in learning are self-regulated strategies used by self-regulated learners, therefore cognition and metacognition, motivation and content are involved in self-regulation learning.

Methods and Materials

Design and Participants

Qualitative and quantitative data were collected and analyzed through a triangulation data collection tool which is a participant observation for the sake of affirming questions and validating the research hypothesis. Besides, it uses a quasi-experiment for achieving the aim of the study and to view the differences between two comparable groups who receive different treatments. The

study was carried out with the effect of the level of meta-cognitive competence on EFL learners' ability to achieve self-directed learning.

For that, the researcher tempts to conduct a quasi-experiment to put this problem under investigation. Through using meta-cognitive strategies of learning, the participants in this study are familiarized with a poem to be studies and are directed into completing a task. The sample of the study consists of 26 students who represent the whole population and who are selected from Higher College of Laghouat. They are similar with regard to their social, cultural, and intellectual backgrounds. They are divided randomly into two comparable groups, EG (experimental group) and CG (control group) for the sake of giving one group more treatment than the other to validate the hypothesis of the study.

The EG is receiving the treatment of the study which lasted for two sessions for both groups, the EG is accustomed with reading and analyzing a poem using their meta-cognitive strategies through organizing their learning, reading the text aesthetically, thinking creatively and critically, self-reflection, and processing information and constructing knowledge, while the other group, CG is not exposed to any treatment for completing the learning task. To validate the research hypothesis, the researcher tempts to incorporate two research variables which are meta-cognitive competence and self-guided learning. This is to determine what treatment the independent variable which is meta-cognitive competence will get and which group will receive a particular treatment. The researcher also longs to classify the variables of research through an ordinal scale measurement to view the impact of one variable over the other or test their causal relationship.

For examining the level of meta-cognitive competence of learners through meta-cognitive knowledge and self- regulation of learners, which are aspects of metacognition along with metacognitive experience, and metacognitive monitoring, self-reflection, and self-control; the researcher tempted to explore the interactive effects of these metacognitive determinants on the learners' meta-cognitive competence, to urge the role and impact of metacognition on developing self-directed learning. The researcher tempts to adapt (Thomas, 2002) meta-cognitive orientation learning environment scale to measure metacognitive competence paradigm in the class, in addition to meta-cognitive aspects of Flavell (1979) and Polya (1957) meta-cognitive regulation. These aspects are successively, meta-cognitive awareness and meta-cognitive strategies.

The learners of both groups have been familiarized with a poem of the American Modern era entitled *Leaves of Grass* (1855) by Walt Whitman. Through the aspects of Flavell (1979) and Polya (1957), the EG has been directed through a task with responding to a set of questions asked by the teacher using their meta-cognitive strategies. They tempted to process their knowledge, organize their learning, choose resources, set goals, ask questions, and self-assess their learning for analyzing the poem. The major claim of EFL teachers is to uphold meta-cognitive skills in their literacy classes to help their learners have independent choices and improve their meta-cognitive awareness by being meta-cognitively competent. This Learning setting can get them highly engaged in processing their knowledge by being self-regulated learners.

The meta-cognitive skills of learners were measured using analytical questions to be answered after reading the poem through the learners' beliefs, perceptions, language and meta-cognitive awareness, in addition to their self-regulation. The EG students read the poem and have been directed to answering questions through critical analysis. The observation sheet is based on scores ranging from 1-5. Using ten criteria and aspects of meta-cognitive skills conducted for answering the analytical questions on the poem for the experiment to complete the observation sheet, each statement was scored on a tape of 1 (low, not very involved) to 5 (intermediate, very involved, and excellent). Thus, the highest possible score was 20 on any one statement during the treatment. One each statement, the researcher circled one number (from 1 to 5) with the average mark of 3 on any statement.

Analysis of Data

In order to analyze the numeral data of this research, the researcher comes to utilize the quantitative approach in order to classify the research variables: metacognitive competence and self-guided learning. The study consisted of the students' perception of their own meta-cognitive skills and how this contributed to enhancing their meta-cognitive competence, as the researcher tempted to highlight their perceptions and beliefs of their meta-cognitive knowledge and self-regulation. Both groups have been administered through treatment in studying the poem with CG dealing with no treatment during the analysis of the themes, while EG students familiarized with implementing their meta-cognitive knowledge and cognitive monitoring through meta-cognitive strategies such as self-assessment, self-reflection, aesthetic appreciation of the poem, and planning while accomplishing the task.

To ascertain the answer to the research question about the effect of meta-cognitive learning skills and strategies on improving and fostering meta-cognitive competence in learners, and thus achieving self-directed learning in performing a task in a literature class. Table 01 depicts the means and variation between the CG students' scores on their meta-cognitive awareness when responding to the poem during the treatment class which lasted for two successive sessions.

Table 1. *CG students' Average scores on their Meta-cognitive Awareness*

Category of Meta-cognitive Awareness	Session one	Session two
a-Learners' beliefs about their self and others' cognitions (learner)	1	2
b-Information about aspects of the cognitive Enterprise (task)	2	2
c-Knowledge about approaching a particular cognitive enterprise. (strategy)	1	3
Average Score	1.3	2.3

Total group Average score 1.3+ 2.3= 3.6 (out of the highest score) 3.6/2 (two sessions) =1.8< 3

The table above shows that most of the CG students haven't been majorly interested or involved in showing their meta-cognitive awareness, and this appeared through their performance

and involvement in class between the levels 1 (low), 2 (not very involved) after being familiarized with the poem. In the first class the learners' beliefs and perceptions about their own cognition, their knowledge about cognition, and their awareness about approaching a task are below intermediate between scores 1 to 2. In the second session, most of the students of the group scored between 2 (not very involved) and 3 (intermediate) as appearing in the final score of 2.3 depicting that most of the participants have problems in dealing with the analysis of the poem and fail to use their meta-cognitive knowledge to accomplish the task through answering the questions.

Therefore, the CG students' performance was significantly estimated low with an overall average score of 1.8 <3 out of the highest score.

Table 2. *EG students' Average scores on their Meta-cognitive Awareness*

Category of Meta-cognitive Awareness	Session one	Session two
-Learners beliefs about their self and others' cognitions. (learner)	3	4
-Information about aspects of the cognitive Enterprise (task)	4	4.5
-Knowledge about approaching a particular cognitive enterprise. (strategy)	4.5	5
Average Score	3.8	4.5

Total group Average score 3.8+ 4.5= 8.3 (out of the highest score) 8.3/2 (two sessions) =4.1>3

As to the persistent effects of the level of meta-cognitive awareness of the students of the EG, findings suggested that the EG participants have high proficiency in showing their meta-cognitive awareness compared to CG student's. The overall score of the students' performance in EG was estimated with an overall average session score of 4.1>3 as higher than the average score.

The table below incorporates the findings of the average scores out of five of the level of self-regulation of the CG during the sessions of studying the poem of *Leaves of Grass* (1855) by Walt Whitman, also how the participants responded to the questions without being directed through a meta-cognitive task. The table below shows the total average scores about the level of self-regulation the learners hold, which can appear through their performance in dealing with the task. Most of the CG participants haven't been highly involved with the task because the teacher is not using instructional strategies which can help them choose their own meta-cognitive strategies such as monitoring and self-assessing their learning.

Table 3. *CG students' Average scores on their level of Self-regulation*

Meta-cognitive Regulation Aspects	Session one	Session two
a. Assessing, understanding and analyzing the problem;	2	2.5
b. Planning, choosing and organizing behavior and actions;	2	2

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c. Executing and monitoring plans;	1	1.5
d. Evaluating, verifying and reflecting on decisions and outcomes	1	1
Total Average Score	1.5	1.75

Total group Average score 1.5+ 1.75= 3.25 (out of the highest score) 3.25/2 (two sessions) =1.6< 3

The table above shows the total average scores about the level of self-regulation the learners hold, which can appear through their performance in dealing with the task. Most of the CG participants haven't been highly involved with the task because the teacher is not using instructional strategies which can help them choose their own meta-cognitive strategies such as monitoring and self-assessing their learning. This appears in the scores of both sessions with 1.5 and 1.75, and with a total average score of 1.6 < 3 which is lower than the average score.

Table 4. *EG students' Average scores on their level of Self-regulation*

Aspects of Meta-cognitive Regulation	Session1	Session2
a. Assessing, understanding and analyzing the problem;	3	4.5
b. Planning, choosing and organizing behavior and actions;	4.5	5
c. Executing and monitoring plans;	5	5
d. Evaluating, verifying and reflecting on decisions and outcomes	5	5
Total Average Scores	4.3	4.8

Total group Average score 4.3+ 4.8= 9.1 (out of the highest score) 9.1/2 (two sessions) =4.5> 3

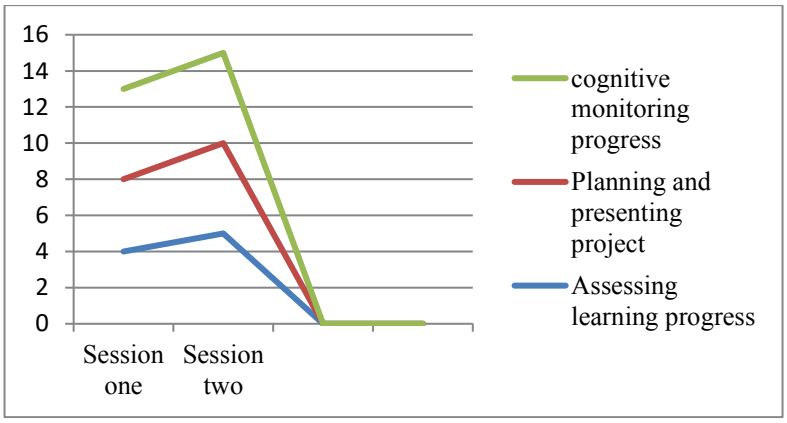
However, the results of the participants of the EG are shown in Table 04 which reveal that the general trend in students' perception of their self-regulation led sufficiently to improving their meta-cognitive competence through cognitive awareness and self-reflection. The total average score of the group participants about the level of self-regulation is 4.5> 3 which developed gradually from session one to session two due to the appropriate choice of their meta-cognitive strategies. This high level score signifies the high competence in learners who succeeded in processing, monitoring, and self-reflecting, and evaluating their learning process.

To be considered jointly, the EG level of self-regulation results on developing their meta-cognitive competence signifies a pattern reporting differences between the results obtained from the CG participants' level of self-regulation, which typically contributes to enhancing their self-directed learning by being fully responsible learners.

In an attempt to spot light on the extent to which meta-cognitive competence of learners can contribute to create self-guided learners in literacy classes, the researcher tempts to analyze data from a particular perspective about the cognitive learning paradigm by investigating the correlation between meta-cognitive competence and self-directed learning. The following graph

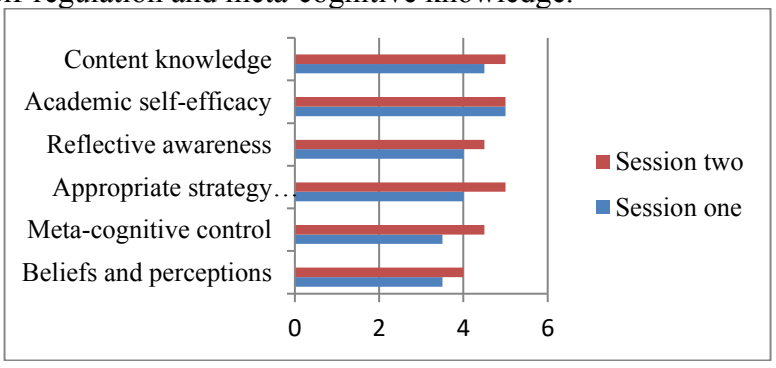
represents the determinants which contribute to enhancing meta-cognitive competence of the EG who are accustomed with the treatment of the study.

The graphs below provide the analysis of the level of some meta-cognitive behaviors of the students of the group suggested by (Schoenfeld, 1987), and how they contributed to structuring their meta-cognitive competence in class. The development of level of metacognitive competence is revealed as follow. The impetus claim for engaging in a learning process to foster self-efficacy and self-directed learning is about practicing certain behaviors which can lead to this endeavor such as setting goals and strategic planning. In this vein, students can be self-regulated learners through cooperation, collaborative work, group work, and interactive feedback, also through assessing learning progress and holding self-efficacy beliefs, the effects of these practical behaviors are discussed as follow. In graph A, cognitive monitoring progress has the highest score which increased from session one to session two.



Graph A Determinants of level of meta-cognitive competence of EG students

On the other hand, graph B reveals other determinants or behaviors which can contribute to developing meta-cognitive competence including content knowledge, academic self-efficacy, reflective awareness, appropriate strategy selection, meta-cognitive control, beliefs and perceptions. Evidence from the graph signifies that the level of meta-cognitive competence of the participants of the group increases due to their awareness of their meta-cognition and to applying their self-regulation and meta-cognitive knowledge.



Graph B Determinants of level of meta-cognitive competence of EG students

Arguably, life-long learning occurs through self-directed practice, support, guidance, and most importantly a favorable learning environment. Self-directed learners need self-control and self-regulation awareness to achieve high level of performance and interaction in class. Indeed, meta-cognition involves knowing about one's own cognitive knowledge and activity and how his knowledge is used to regulate cognitive activity during learning. It consists of metacognitive experience, awareness, and self-regulation which all lead to self-regulated performance and meta-cognitive competence.

Discussion

Based on the above data analysis through the observation sheet completed by the researcher herself; and prior to the review of related literature of the study, it is clear that the level of the students' ability in pursuing meta-cognition use is not frequently improved when they are directed to the teaching methodology. On the other hand, the EG students findings are revealed through the scores introduced in table two.

The EG scores highly increased from session one to session which signifies the students high level of meta-cognitive awareness in dealing with the task, and because they are aware of making effective choices of their meta-cognitive learning strategies such as processing information, organizing, monitoring, and self-assessing their learning. Table two reveals their scores which are rated between levels 3 (intermediate), 4 (very involved), and level 5 (excellent) and after dealing with the literary text. It is apparent in session two that most of the participants in the group considered their level of meta-cognitive awareness as above intermediate scoring between 3 and 5, the highest score resulting in the final score of 4.1 which is higher than the standard score. Aspects of Meta-cognitive awareness scores increased because they render as determinants of most of the participants of the group's meta-competences.

Consistent with the findings of the students' scores on their meta-cognitive awareness, the level of the students' ability of completing the task after reading the poem is noteworthy and highly developed. This demonstrated the importance of the learners' perceptions of full responsibility and knowledge construction and use through their meta- cognition. Similarly, the researcher tempts to investigate the level of meta-cognitive strategies use through self-regulation of learners by adopting Polya (1957) aspects of meta-cognitive regulation including organization, verification, orientation, and execution. On the other hand, the results of the average scores on the students' self-regulation suggested that the level of the students' self-regulation in completing the task after reading the poem is not efficient and they didn't perceive competence which can make them independent learners by choosing their own meta-cognitive learning strategies and skills. This demonstrated lack of the learners' full responsibility which can be represented through setting objectives, achieving goals, seeking resources, communicating, and setting conditions for their learning.

Cognitive monitoring process level increased which signifies that the participants of the group have cognitive ability in monitoring their own learning because they have a good choice of meta-cognitive strategies in their learning task, then planning and presenting projects has a second high score because most of the participants succeeded in setting objectives for their learning and seeking adequate resources for the learning content. Additionally, the participants managed to

assess the results of their learning task by collecting evidence of their learning progress and achievement over the two sessions of learning. This proves the development in the learning progress of the participant which resulted in self-directed learning. By this learners tempt to prove their independent learning through the use of meta-cognitive strategies of learning which contributed to increasing their meta-cognitive competence in dealing with the task.

Conclusion and Recommendations

This study of the effectiveness of meta-cognitive competence on achieving independent and self-guided learning in Algeria provided valuable data about the benefits of conducting an experiment on which the investigation is. The significance of the interaction effects between the two research variables highly supported and impacted the findings of the study. Indeed, the analysis of the data revealed the great potential of working with a poem in the class to promote meta-cognitive competence and opens up the possibility for a major goal which is achieving life-long learning through meta-cognitive awareness and self-regulation. Considering the research question of the study of the effects of meta-cognitive competence on the achievement of self-guided learning and on processing an independent learning progress in literacy classes, the findings demonstrated that the students of the EG perceived the learning task as highly effective and fundamental. They have been directed to applying their meta-cognitive skills which helped them pursue high level of understanding of the poem as interpreted in level of average scores of the group. The study resulted in the fact that self-regulation, self-reflection, meta-cognitive awareness, and monitoring which are meta-cognitive strategies all contributed to increasing the level of meta-cognitive competence of learners which typically led to self-guided learning.

Therefore, the findings of the study tempted to be highly effective compared to other research findings in the field which affirm and prove the high benefit of meta-cognition in the Algerian higher educational level. The study has set the agenda for future research in sub areas such as learning autonomy, learning strategies, assessment and evaluation in the ELT classroom, and provides various practical implications for teachers and independent learners to achieve autonomy and self-directed learning in a literary class. Further studies should therefore explore how these topics are discussed and practiced in teacher education curriculum. Since meta-cognitive strategies and competence in learning have been essential to developing self-directed learning in higher education level with undergraduate and graduate learners, further studies can be conducted with post-graduate learners. Plenty of learning practices and materials, and ongoing processes can contribute to developing learning English as a foreign language and its literature. These can be instructional strategies, teaching materials, and teaching methods which can improve meta-cognitive awareness and learning abilities such as independent choice, organizing information, interpretation and self-reflection. Therefore, the integration of meta-cognitive knowledge and skills in teaching English language and literature is an efficient effort, as it proves to be a highly fundamental issue in engaging EFL learners in active learning situations by being self-directed learners with high level of meta-cognitive competence in class.

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