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Strategies for Self-regulated Learning and Associated Impact on Academic Achievement in an EFL Context

Eman Khaled Essa

Damanhour University, 27 Galal Qoreitem Sq., Damanhour City, Eqypt

Abstract

This study set out to investigate the effectiveness of self-regulated learning techniques. With a sample size of twenty students each, a quasi-experimental pre-test post-test control group design was adopted. A self-regulated learning questionnaire was used in addition to students' marks in essay and writing subjects that were obtained and considered the reference of the academic achievement. The study's pedagogical ramifications were examined. The overall results showed improvement in the students' self-regulated learning and academic achievement as measured by the study's instruments. They agree with the studies which refer that students can control their learning behavior through their beliefs and therefore produce positive results. The self-regulated process helps make changes in students' learning behavior.

Keywords: Type your.

1. Introduction

The recurring changes in international pandemic circumstances had already imposed countless changes on learning and teaching approaches in order to meet the new challenges and demands. This includes the need for students to concentrate on and use learning strategies that enable them to expand their abilities to be more effective learners. Regarding the fact that the primary goal of almost all educational systems is to prepare future generations to participate effectively in their societies and to think independently and creatively. One approach to achieving this is to adopt appropriate learning strategies, and thus focusing on self-regulated learning strategies began to gain traction.

First-year university learners are mostly faced by a number of new responsibilities that they have to deal with at university, which differ on various levels from what they used to do at school. one of the major challenges is being more independent than they used to be at school. In addition, they should be able to manage an advanced level of ability in critical thinking, communication and self-study skills. Some learners fall under intense pressure in trying to cope with the new learning environment (Weinstein, Acee & Jung, 2011) referring to the lack of appropriate learning strategies for using wide-ranging learning resources available to them. This sometimes is demonstrated through the inability to reflect on and monitor their learning. However, this is not limited to poor-performing students, as learning involves diverse skills and needs higher individual responsibility. (Vansteekiste,et al,. 2012).

Self-Regulated Learning (SRL) is regarded as one of the indicators of learning and personal development because learning is an interactive process that requires the learners' participation. Self-regulated learning refers to the self-directed processes and self-beliefs that allow students to convert their intellectual capacities into academic performance skills (Zimmerman, 2008). Therefore, raising the consciousness of the learners on how to be more dynamic, however self-regulated learning strategies are not explicitly communicated in high-school curricula which is why students are not that familiar with them. (Vansteekiste,et al,. 2012)) refers to SRL as a content-dependent activity which makes it appropriate to say that developing students' language skills for instance at university should be more related to effective cognitive and metacognitive strategies so as to be language proficient and to have a high probability of success in their academic life as learners of foreign language and professional life as language teachers. Zimmerman (2001) defined self-regulated learning as metacognitive, motivational, and behaviorally active participation in the learning processes to help attain learning goals.

* Corresponding author.
E-mail address: emmankhaled2@gmail.com

According to Pintrich (2004), SRL students take specific steps. First, the learners establish learning objectives for their learning process and can monitor their progress toward these objectives. Following that, they begin adjusting and regulating their cognition, motivation, and behavior which enhance persistence in order to achieve their goals and avoid any performances or obstacles that impede their academic performance.

Zimmerman (2001) identified a self-regulatory process according to a three-phase cyclical model including planning, performance, and self-reflection. In the pre-planning phase, learners set goals and sub-goals on what they want to achieve in their learning process for example on the writing tasks that are given to them. Next is planning which is often before writing and sometimes also while writing., they need first to understand the task, state the purpose, collect data, organize the data obtained, choose which learning strategies to be used to complete the task, and finally, review and edit the writing (Diaz, 2013).

According to Diaz (2013), during the performance phase, students keep track of the mistakes they make, the feedback they receive from their teachers and the strategies they employ. They monitor major characteristics such as content, organization, coherence, and cohesion, as well as specific aspects such as grammar.

During the self-reflection phase, learners reflect on the quality of their completed task, focusing on their learning and achievement and the efficiency of the strategies that they chose. Learners should be able to regulate their thoughts and emotions about the objectives of the learning experience through this stage. These self-reflections assist in characterizing students' future goals and planning, thereby restarting the cycle.

The behavior of self-regulating learners is characterized by being purposeful and with a high degree of persistence. They plan, set goals, and self-evaluate performance in the various stages of learning, they can manage their learning with high efficiency and self-efficacy, they have internal motivation, and they work to prepare an educational environment that stimulates learning to the maximum extent possible, and the most important characteristics that they also have are: They master cognitive strategies and how to use them (recitation, use of detail, organization). They plan, control, and direct their mental processes toward achievement and personal (metacognition) goals.

They show a set of beliefs related to motivation and adaptive emotions, such as a sense of self-efficacy, adoption of educational goals, developing positive feelings about the task (pleasure, satisfaction, enthusiasm), as well as the ability to control and modify it according to the requirements of the task and the educational situation. (Al-Husseinan, 2010: 17).

Components of self-organized learning

Mishri (2014: 185) indicates that the components of self-regulated learning are considered as general determinants of the individual's ability to self-regulate their learning, and the weakness of the individual's level in any of them leads to a weakness in the level of self-organized learning. Zimmerman has presented three components of self-organized learning, which active students practice during their learning processes, so they are more aware of the functional relationships between their patterns of thoughts and actions and social environmental outcomes, and these components are:

Knowledge: Knowledge has a major role in the self-organized learning process, as the responses that come from the individual are largely the result of what they have of previous internal knowledge of what the individual learns, and thus affects the extent of their ability to learn, as Al-Husseinan (2010: 47) refers to That the learner's previous knowledge controls the control of the new learning capabilities, meaning: that any specific new knowledge - facts, concepts, skills - cannot be learned until it becomes firmly established and a basis consists of the knowledge that it relates to in the learner.

Metacognition: was first introduced by (Flavel, 1976), and they define it as: the individual's knowledge of their cognitive processes and outputs, their strengths and cognitive weaknesses, and their awareness of all factors related to these processes. (Al-Husseinan, 2010: 47).

As a result, metacognitive skills are important since they provide the learner with the reasons for their failure to understand some topics, and they also contribute to effective memorization and increase the ability to collect, in addition to assisting them in the ability to retain and recall, and they are also useful in choosing appropriate plans and strategies to reach the goal and identify and overcome obstacles that impede progress.

Motivation is essential as one of the components of self-organized learning. Learning in this context is focused on the individual's goal and motivation to achieve that goal, as it influences their behavior and contributes to focusing attention and selecting tasks, activities, and strategies. The two main dimensions of motivation are the goal's importance and the individual's expectation of their ability to achieve it. The task's value is regarded as an important determinant in the learner's future task selection. It also determines the level of integration in these tasks in terms of goal achievement.

After reviewing the educational literature, it appears that there are several models for self-regulated learning that present several structures and different stages for this style of learning, but they share four basic assumptions: Active construction: It comes from a general cognitive point of view, considering that activity is an essential feature of the self-regulated learners, as they set their goals and choose strategies to help them achieve and accomplish them, using the information available in the external and internal environment. Potential for Control: It is related to the first assumption, and it assumes that the learners can monitor, control and regulate certain aspects of their knowledge, motivation, behavior, and some features of their environment.

Goal Orientation: It assumes the existence of a goal or standard upon which the learning assessment process is carried out, as well as determines the extent to which the goal has been managed to meet, by organizing perception, comprehension, and motivation. *Self-Regulated Operations*: It is assumed that these activities, including learner motivation and behavioral self-regulation, mediate the relationship between personal attributes and environmental information on the one side and final performance on the other side (Unal & Yamac, 2013).

Among the most famous of these models, according to their modernity and frequency of use in studies and research: First, the social cognitive model, it is also called the model of the cyclical stages of academic learning developed by Zimmerman (Zimmerman, 1998), and then developed in 2008, and Zimmerman views the process of self-organized learning as a multi-dimensional, adjustable process, and these dimensions are:

Behavioral self-regulation: It refers to self-monitoring and modification of performance processes. Environmental self-regulation: includes monitoring and control of environmental conditions. *Personal self-regulation*: It includes monitoring and modifying the cognitive and emotional aspects. These dimensions or components require periodic activity by the learner to become self-regulated, and it occurs through three basic stages: (Zimmerman, 2008), The stage of thinking and planning. The stage of performance and administrative control, and the stage of self-reflection.

Second: the general framework model for self-organized learning It was developed by Pintrich (2000), and it shows the activities of self-regulation of learning in four main areas: cognitive, emotional, behavioral, and contextual environment, through four stages: (Bergamin et al., 2012) *Reflection*: during which planning, setting goals, activating awareness and knowledge of the task and context, and linking oneself to the task. *Self-monitoring*: The focus during this stage is on the monitoring processes represented in the awareness of the meta-knowledge of the different aspects of the self, the task, and the context. *Controlling and managing*: In it, efforts are directed to control and regulate the various aspects of the subject, task, or context. *Self-reflection*: This stage includes different types of reflections and reactions regarding the self, the task, and the context.

These four stages represent a chronological sequence that the learner follows during the learning process, where the learner sets out to perform the task with some changes and modifications in goals and plans based on feedback from monitoring and control processes and feedback. This appears to mean that the goal of SBI is to help students apply learning and language strategies. Furthermore, SBI assists learners in (a) recognizing their strengths and weaknesses; (b) discovering what enables them to learn effectively; (c) developing problem-solving skills; (d) monitoring as well as evaluating their own performance; and (g) being able to transfer effective strategies to innovative learning situations.

Several studies have looked at the effects of self-regulated learning on academic outcomes in the context of English language learning. Zimmerman & Kitsantas (2002) investigated the observation and simulation procedure in writing. The analysis revealed that using these strategies increased students' levels of self-regulation, which also helped them to maintain a high level of interest in the task and processes as well as specific self-regulation components such as memory strategy, goal-setting, self-evaluation, seeking assistance, responsibility, and organizing.

Another study conducted by Seker (2016) investigated learners' use of Self - regulated learning by focusing on its three main components: orientation, performance, and evaluation. he studied their predictive ability in foreign language learning achievement. A total of 222 college students and learners of foreign languages from a state university took part in the study. A five-point Likert-type self-regulated language learning survey as well as the university's English accomplishment aptitude test were utilized to gather data. And although respondents indicated

moderate to low levels of Self - regulated learning strategies use, the results revealed that it is a significant predictor of foreign language academic achievement and has remarkable correlation coefficients with learning new languages (Seker,2016).

Tohmaz, Alotaibi, & Jabaka (2017) conducted another study to investigate the relationship between self-organized learning and academic achievement among a sample of community college students at the University of King Saud. The sample consisted of 356 male and female students in their final year of high school. The correlative approach was used by the researchers, and the scale of self-organized learning strategies and academic achievement was measured by the student's grade levels in English and Mathematics.The study's findings demonstrated a positive, statistically significant relationship between self-organized learning and academic achievement, as well as a positive and significant relationship between goal setting, achievement, and planning.

Another study AlKafere (2021) sought to determine the level of self-regulated learning strategies practiced by students, their level of determination for academic achievement, and whether there was a significant relation between self-regulated learning strategies and motivation for students' academic achievement. The study sample included (836) male and female students from the University of Hail's College of Education. The results of the study showed there was a positive relationship between self-regulated learning strategies and student motivation for academic achievement. The findings advocated for the development of training programs aimed at teaching university students how to apply self-regulated learning strategies.

2. Research Methods

2.1. Participants

The recent study addressed a sample of (40) students in the first year (English Language major) in the faculty of education. Students were randomly selected after briefing them about the study, and their approval of participation was obtained. Participants the sample of the study was divided into an experimental group and a control group, each of which contained 20 students.

2.2. Measures

A self-regulated learning questionnaire was used in addition to students' marks in essay and writing subjects that were obtained and considered the reference of the academic achievement.

2.3. Self-Regulation Learning Questionnaire

Oz & Sen (2018) prepared a five-factor structure questionnaire containing (39) items. These factors are: (1) studying method, (2) self-evaluation, (3) receiving support, (4) time management and planning, (5) Seeking Information. The Cronbach Alpha value of the scale was 0.89. Confirmatory factor analysis (CFA), which was conducted to test whether the five-factor structure of the scale was consistent with the previously defined factor structure, these results show that the self-regulated learning questionnaire is a suitable tool for the measurement of self-regulated learning.

3. Results and Discussion

3.1. Results

The study used the quasi-experimental pre-test post–test control group design to investigate the effectiveness of the proposed SRL strategies for developing the academic achievement of first-year learners.

Table 1. Difference between means of both the experimental and control groups on the pre-test

Category	Mean	SD	t	Sig.
SRL-ex	25.721	3.812	0.279	Not
SRL-con	26.212	2.742		
Ach-ex	71.432	2.772	1.072	Not
Ach-con	61.432	3.078		

As can be seen from the table 1, there are no significant differences between the means of measurement of both the experimental and the control group on the pre-test on all the study variables and on the median variables.

Results regarding the first hypothesis "There are significant differences between the experimental and the control group on the post-test measurement of SRL and academic achievement in favor of the experimental group." To test this hypothesis, two surveys were applied for self-regulated learning and the second for academic achievement. The following table shows the summary of (the T-test) for the two independent samples of the study, the control, and the experimental groups, on the post-test measurement of the study variables.

Table 2. Differences between means of post-measurements of the experimental and control groups

Category	Mean	SD	t	Sig.
SRL-ex	48.213	7.574	12.534	0.001
SRL-con	28.263	3.133		
Ach-ex	123.423	16.876	11.912	0.001
Ach-con	68.621	12.672		

The table 2 displays that there are statistically significant differences between the means of scores of experimental and control groups in the post-test on the academic achievement and self-regulated learning variables favoring the experimental group.

Results regarding the second hypothesis "There are statistically significant differences between means of scores of experimental group's pre-and post-measurements of SRL and academic achievement variables favoring the post-measurement." The following table shows the results of (the T-test) between the means of the pre-and post-measurements of the experimental group.

Table 3. Differences between means of pre- and post-measurements of SRL and academic achievement of the experimental group

Category	Mean	SD	t	Sig.
SRL-pre	26.901	3.0762	14.932	0.001
SRL-post	48.934	7.534		
Ach-pre	69.907	12.664	11.874	0.001
Ach-post	123.864	16.877		

The table 3 bares that there are statistically significant differences between the means of scores of the experimental group in the pre-and post-tests on the academic achievement and self-regulated learning variables favoring the post-test. It also shows that there is a strong effect size. Results regarding the third hypothesis "There are no statistically significant differences between means of scores of the control group of the pre-and post-measurements of SRL and academic achievement." The following table shows the results of (the T-test) between the means of the pre-and post-measurements of the control group.

Table 4. Differences between means of pre- and post-measurements of the control group

Category	Mean	SD	t	Sig.
SRL-pre	26.214	2.8149	0.795	Not
SRL-post	28.286	3.133		
Ach-pre	68.325	12.842	0.107	Not
Ach-post	68.621	12.554		

As the table 4 displays there are no statistically significant differences between the means of measurement of the pre- and post-tests of the control group, as the (t) value does not reach the accepted significant level.

Results regarding the fourth hypothesis "There are no statistically significant differences between means of scores of the experimental group of the post- and the follow-up measurements of SRL and academic achievement." The following table shows the results of (the T-test) between the means of the post- and the follow-up measurements of the experimental group.

Table 5. Differences between means of post- and follow-up measurements of the experimental group

Category	Mean	SD	t	Sig.
SRL-post	48.2134	7.574	1.784	Not
SRL-follow	49.431	7.455		
Ach-post	123.423	16.876	1.544	Not
Ach-follow	125.944	17.344		

Based on the table 5 there are no statically significant differences between the post- and the follow-up measurements of the study variables of the experimental group.

3.2. Discussion

This study examined the effects of using different strategies on students' self-regulated learning as well as their academic achievement of a sample of EFL college students enrolled in the English department. The strategies used contained direct instruction and modeling of self-management, planning, goal setting as well as self-evaluation. The overall results showed improvement in the students' self-regulated learning and academic achievement as measured by the study's instruments. They agree with the studies which refer that students can control their learning behavior through their beliefs and therefore produce positive results. The self-regulated process helps make changes in students' learning behavior. Moreover, the results matched those studies by Cohen (2012), and Pintrich (2004) which ascertain that strategies can be taught. Cooperation, organization, and resources management are related to goal orientation which affects the students' cognitive awareness level as they tend to use learning strategies more and as a consequence, their performance develops. The advocates claim that teachers could enhance their learners' levels of self-regulation through intervention. Generating a self-regulated learning environment is one way to make students become independent learners who can enhance their academic performance and supplement their own studies in the future. The size of the sample is the limitation of this study. It would be remarkable if future researchers would be interested in studying the effects of the proposed self-regulated writing strategies on a larger sample. The present study focused on goal setting, planning, keeping records and monitoring, reviewing, and asking for help.

4. Conclusion

Strategy-centered instruction is advantageous to those learners who tend to focus on the strategies that have been demonstrated by teachers. However, it is crucial to note that it is necessary for the students to monitor the application of the needed strategies, Thus, it is recommended that educators and lecturers raise their students' awareness of the use of self-regulated strategies at the beginning of the learning process, in addition, they can conduct an inquiry of students' shared difficulties to character out the feebleness of their students and even the strengths as well. In this regard, educators would be able to alter their target teaching goals and the different tasks that would be conducted as well. The suggested strategies in this research could be achievable modified to other courses with instructional backgrounds.

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