

Effect of Self-Regulated Learning on Students' Academic Achievement in the Subject of English at Secondary Level

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Abstract

The study aimed at finding out the effect of students' self-regulated learning on their academic achievement in the subject of English. The study was conducted at the secondary level in the province of Punjab. It was quantitative in nature and employed a true experimental design (pre-test post-test control group). It was significant for teachers, curriculum stakeholders, training bodies, and policymakers. For the study sampling, a simple random sampling technique was used. Students' achievement test was developed for pre-test and post-test. The study sample consisted of sixty students of grade IX and they were divided into two groups; experimental and control. A pre-test was conducted on both groups to measure their current status of academic achievement. After the pre-test, the subject of English was taught to the experimental group by using self-regulated learning strategies while the traditional method (dominantly lecture method) was adopted to teach the control group. A post-test was conducted after an intervention of 16 weeks. The results of the test were compared by using a t-test. For data analysis, SPSS was used and results were interpreted accordingly. The study results revealed a significant difference between the test score results of the students. The study recommended appropriate teachers' training to use self-regulated learning strategies effectively at the secondary level. Textbook contents were also recommended to be devised supportive to gauge self-regulated learning.

Keywords: Self-regulation, Academic Achievement, Secondary Level

Introduction

Self-regulated learning (SRL) is denoted as the active participation of the learners to foster their learning. They actively participate to set their own learning goals. They put the highest potential into the tasks they develop and look for their performance through self-monitoring and self-control and achieve their goals. Self-regulated learners possess capabilities to cope with their behavior by dealing with and controlling it and exhibit to be more reflective (Daniel, Wang, & Berthelsen, 2016). It is the ability to control and articulate one's behavior to accomplish the tasks effectively. It enables the students to control their thoughts, feelings, and performance towards a task (Baumeister & Vohs, 2004).

Self-regulation skills help to control the thoughts and task performance in individuals. The learners, who are self-regulated in their behavior, are more likely to take interest in their learning activities. SRL enables the learner to make the right decisions and choices about their academic performances. Self-regulated students show rather more interest in their learning activities and can design better strategies to achieve learning goals. It is very essential to encourage self-regulated behavior during the adolescence level. It is based on the fact that adolescents require more independence and self-determination (Wang & Cai, 2017). Students with more self-regulatory skills perform better in their academics as compared to the students who possess low self-regulation skills (Baumeister et al., 1994). Students who possess a higher level of self-regulation possess better abilities to plan. They can develop better strategies to achieve goals and are more practical to take decisions to get successful (Bandura, 1986).

Studies prove the positive relationship between self-regulation and academic achievement (Boekaerts & Corno, 2005). Behavior control is associated with regulations and studies prove its importance for the students by determining the positive relationship with their achievement (Diamond et al., 2007; Dent & Koenka, 2015). It is like class activities to teach the students planning and goal setting (Alotaibi, Tohmaz & Jabak, 2017; Mikkänen, Perry & Järvelä, 2015) as self-regulation

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contributes making the students proactive towards their studies and they manage their time properly (Sahranavard, Miri & Salehiniya, 2018; Veas, Gilar & Minano, 2016).

The rationale for the Study

Students' learning styles significantly influence their academic achievement (JilardiDamavandi et al., 2011). Self-regulated learning is one of the effective learning styles of the students that influence students' learning and establish a relationship with students' academic achievement (Kitsantas et al., 2009). Students struggle to achieve better academic outcomes (Chemers & Garcia, 2001; Tuckman, 2003). Teaching a second language has always been a matter of great concern in any educational scenario. Being an international language, English (Meera & Jumana, 2015) has been adopted as a second language in various countries (Lane, 2009) including Pakistan (Aronoff & Rees-Miller, 2007). It is taken as a compulsory subject from very early grade to the level of graduation in Punjab and considered as a yardstick for higher learning and better career choices (Government of Pakistan, 2006; Hrehová, 2010). It requires, as a subject, to be taught with all its corresponding skills involving effective teaching and learning strategies. Self-regulated learning has determined its role in language learning at the secondary level (Bown, 2009; Gan et al., 2004; Gao, 2010).

Study Objective

The objective of the study was to find out the effect of students' self-regulated learning on their academic achievement in the subject of English at the secondary level.

Literature Review

Self-regulation, as defined in the literature, is thoughts, feelings, and actions that the learners adapt to complete tasks (Baumeister et al., 1994). Self-regulation contributes to students managing time effectively to concentrate on their academic tasks. It also helps to avoid students from distraction (Baumeister & Vohs, 2004; Deci & Ryan, 1991). Self-discipline provides effective ways of studying to the students through which they successfully achieve their academic goals. To be self-disciplined is the need of every student (Sarwar et al., 2009). Self-regulation, purposeful thinking, and a well-disciplined attitude are the essentials of self-regulation. Many times students with better cognitive abilities show poor achievement as they lack self-discipline and self-control (Robyak & Downey, 1979; Nagaraju, 2004).

The concept of self-regulated learning bases on goal settings that involve good learning techniques, effective time management, and positive self-concept (Bandura, 1997) as Ozan et al., (2012) pointed out that self-regulated students possess a higher level of self-efficacy. They plan their own goals and try to achieve them effectively. The academic life of the students is always demanding from the students to be composed and energetic for the forthcoming tasks. It demands abilities to deal with multitasking and a variety of challenges. They try to eliminate their impulsive behavior and believe in themselves to avoid failure in the accomplishment of tasks (Pressley, 1995; Schunk & Ertmer, 2000; Zimmermann, 2000). Individual differences are also an important topic in self-regulation that can be addressed at any stage (Tangney, Baumeister & Boone, 2004; Veas et al., 2016).

All the students want to achieve better in their academics. In the near past, low achievers were considered low in cognitive skills (Nagaraju, 2004; Nolen, 2007). This misconception got beat with the results of various studies that reveal factors that cause poor achievement. Lack of motivation, less concentration, poor study skills, examination fear, lack of self-confidence, low level of self-regulation, poor self-concept, and test anxiety are the considerable factors in this discussion (Lin, 2001; Rana & Kausar, 2011; Sirohi, 2004). Self-regulated learners are capable to use more cognitive strategies and attain long-term goals (Shoda & Mischel, 1996). They deal with all the four components of self-regulation that involve standards, motivation, monitoring, and willpower. Self-regulation needs energy that affects students' behaviors in different situations (Baumeister et al., 2006). Decrease in the energy level of the students confronts remaining not self-regulatory (Baumeister & Vohs, 2004) and face failure in completing the tasks that is why many studies suggest exercises for improving self-regulated learning skills (Baumeister et al., 2006; Tangney et al., 2004).

Feedback from parents to the teachers of their children enhances self-awareness in them that is directly associated with their self-control (Carver & Schier, 1990; Mikkänen et al., 2015). According to Martinez-Pons (2002), parents' guidance can be effective in improving children's self-regulation, enhancing their interest in studies, and results in better learning skills. In their study, Kornel and Bjork (2007) indicated that 75% of students did not plan for their studies rather they

studied situationally to cope with their class tests or another kind of tasks. They studied to deal with some sort of urgency. This type of studying does not provide the basis for long-term goals as it is intuitional instead, self-regulation involves the long-term process of learning to achieve goals.

Self-regulation is embedded in motivation. Intrinsic motivation and extrinsic motivation are the two fundamental types of motivation according to the Theory of Self-Determination. With the discussion of regulations, internal and external motivation is known as autonomous and controlled (Ryan & Deci, 2000). Autonomous motivation is self-directed and independent whereas controlled motivation is concerned with external regulations that involve rewards and punishments. Autonomous motivation reinforces the internalized process of decision-making towards achieving goals (Deci & Ryan, 2008).

Theoretical and Conceptual Framework

Social cognitive theory contends self-regulated learning as learning in which learners are metacognitive, motivationally, and behaviourally active participants in their learning process (Zimmerman, 1986). Based upon this definition, Zimmerman postulated the triadic perspective of self-regulated academic learning, including self-processes behavioral influences, and environmental influences acting upon one another in a reciprocal manner (Puustinen & Pulkkinen, 2001; Schunk, 1990; Zimmerman, 1986). Self-regulation, from a social cognitive perspective, involves specific goals, utilizing task strategies (elaborating, organizing, and rehearsing), displaying high levels of self-efficacy and intrinsic interest, and self-monitoring and self-reflecting on performance outcomes (Zimmerman & Schunk, 2008). The specific cognitive and behavioral processes include metacognitive learning strategies and time and study environment management as both are important variables regarding academic achievement (Nonis et al., 2006; Shivpuri et al., 2006).

Second language learning has always been a great concern of education systems (Crystal, 2003; Government of Pakistan, 2006). Teachers possess a crucial role in selecting and devising strategies to foster the learning of the students (Ornstein & Hunkins, 2014). They put forth the students as independent learners and learn them knowing strategic learning (Leithwood & Jantzi, 2008) such as self-regulated learning (Pintrich, 2004). Learning and cognition (Bandura, 1977) have the same association as language learning has with the social context (Zhou & Brown, 2017). Resultantly, students do their best for achieving academic tasks (Pintrich, 2004; Zimmerman, 2008).

Methodology

The study employed a true experimental (pre-test post-test control group) design. All the students of grade IX of one public sector female secondary school of district Sargodha were the study population. The study sample comprised of sixty students of grade IX by using simple random sampling. The selection of 60 students was made by using a table of random numbers. These 60 students were subdivided randomly into two groups comprising 30 students in each group that includes experimental and control groups. The decision regarding the determination of groups was made by coin-flipping.

Instrumentation (Achievement Test)

The researcher herself developed an achievement test to measure the academic achievement of the students. The test was developed by using the content of the textbook of English for grade IX. The test was comprised of 50 multiple-choice questions (MCQs) and it was used to conduct the tests (pre-test and the post-test).

Data Collection

An achievement test was taken from both of the groups as a pre-test. After the pre-test, the experimental group was given treatment. The manipulated variable was self-regulated learning strategies. The experimental group was taught English subjects by applying self-regulated learning strategies for sixteen (16) weeks; six classes per week at the rate of 45 minutes per day. English textbook for grade IX was the content to teach both of the groups. On the other hand, the conventional method was used for the control group during the same period. After completion of the intervention period achievement test was again conducted to both groups as a post-test.

Results and Data Analysis

To analyze the data of the study, SPSS was used. Comparisons of results of both of the tests (pre-test and post-test) of each group were made by applying paired sample t-test. While between groups comparison was made by applying an independent sample t-test. These comparisons helped the researcher to find out the effectiveness of self-regulated learning on the achievement of students. These results also led the researcher to draw research findings and conclusions.

The null hypothesis was formulated to find out the effect of students' self-regulated learning on academic achievement at secondary level i.e., H_{01} : There is no statistically significant difference between experimental and control groups' mean scores of academic achievement at the secondary level. The detailed data analysis with interpretation is presented as under:

Table: Comparison of Mean Scores regarding Students' Academic Achievement

	Mean	SD	t	Df	sig. (2-tailed)
Experimental Group post-test	42.23	4.584	24.827	29	.000
Experimental Group pre-test	24.50	2.751			
Control Group post-test	24.40	2.848	1.533	29	.136
Control Group pre-test	24.20	2.722			

Note: $p = 0.05$ and $n = 30$

The results in the table reflected the comparison between the scores taken on pre-test scores and post-test, in the experimental group regarding the academic achievement of students. Post-test results showed significant improvement in achievement score as (mean = 42.23, SD = 4.584) and the pre-test (mean = 24.50, SD = 2.751). The alpha level i.e., p -value .000 is less than the pre-selected p -value that shows statistically a significant difference in the mean scores. So, the statistical results failed to support the null hypothesis, "there is no significant difference between pre-test and post-test mean scores of academic achievement among secondary school students of the experimental group". The results showed a statistically significant ($t = 24.827$, $p = .000$ i.e., < 0.05) difference between the scores taken from pre-test and post-test of the experimental group regarding academic achievement, and this difference existed due to self-regulated learning strategies.

Moreover, results in the table reflected the comparison between the scores taken on pre-test and post-test of the control group regarding the academic achievement of students. Post-test results showed no improvement in academic achievement as (mean = 24.40, SD = 2.848) and the pre-test (mean = 24.20, SD = 2.722). The alpha level i.e., $t = 1.533$, p -value = .136 is greater than the pre-selected p -value i.e., 0.05 which shows no statistically significant difference in the mean scores. So, the statistical results failed to reject the null hypothesis; "there is no significant difference between pre-test and post-test mean scores of academic achievement among secondary school students of control group".

Discussion

The study analyzed the effectiveness of students' self-regulated learning strategies on their academic achievement. In the findings, it is evident from the results that pre-test on both of the groups showed no significant difference in students' academic achievement. A significant difference was noted between the mean scores of both of the groups. Moreover, no significant difference was found between pre-test and post-test scores of the control group whereas a significant difference was noted on pre-test and post-test scores of the experimental group. The study concluded that self-regulated learning is significantly effective in improving students' academic achievement. Conventional teaching methods did not have a significant difference regarding students' academic achievement.

The study presents an analysis that self-regulated learning is significantly effective in increasing students' academic achievement. These findings are consistent with the findings of Zimmerman, Bandura, and Martinez-Pons (1992), Kitsantas, Steen, and Huie (2009), Chen and Lin (1995), Pintrich (1999), Zimmerman and Martinez-Pons (1988), and Boekaerts and Corno (2005). Literature reveals that students wish to do their best (Pressley, 1995; Schunk & Ertmer, 2000; Zimmermann, 2000) but various factors hinder their achievement (Lin, 2001; Rana & Kausar, 2011; Sirohi, 2004). Self-regulation provides them self-concept and self-control to foster their progress towards achieving their academic tasks. They are good at planning and making decisions too while handling their academics through self-regulated strategies (Baumeister & Vohs, 2004; Deci & Ryan, 1991). Effective strategy use helps students building their positive self-concept and put their efforts consistently towards achieving academic goals (Daniela, 2015). Self-regulated learning contributes to students achieving goals managing them to put their highest potential to their studies and resultantly, they produce better academic results (Duckworth et al, 2019; Ergen & Kanadli, 2017; Sahranavard et al., 2018; Veas et al., 2016).

The study recommended a plan to put forth the teachers for two days workshop to make them aware of the need and use of self-regulated learning strategies and to focus the contents in the textbooks if already given. It is recommended for the curriculum developers to devise teaching methods that may encourage self-regulatory learning among the students. Pre-service teacher training

is also recommended to include the contents related to this learning strategy. The study recommended more researches to be conducted on different grade levels and different subject areas as well as in boys' schools.

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