

Self-regulated Learning Strategies of High School Student in Afghanistan: An Exploratory Study

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ABSTRACT

The present study was conducted on self-regulated learning strategies of high school students of Afghanistan. The objective of the study was: To investigate the gender, residence, and type of school difference in use of SRLS, to find out relationship between self-regulated learning and general academic achievement of high school students. In the present study descriptive survey method was employed. The sample of the study comprised of 356 high school students of Herat province of Afghanistan. The Dari (Persian) version of Motivation Strategies for Learning Questioner (MSLQ) that developed by Pintrich and De Groot (1990) was used to collect the data. For purpose of drawing out the results the statistical techniques t- test and correlation were used. Through this analysis, the major findings of the study are: - There exists significant difference between boys and girls students on use of SRLS. There exists significant difference between urban and rural students concerning the use of SRLS. There exists significant difference between government and private school students concerning the use of SRLS.

1. Introduction

Learning is a continuous process that start from one knows and it goes toward an individual who want to know. It means that during learning process every individual is looking for someone who knows in order to reach in their goals and their needs. Learning is a process of obtaining new knowledge, skills, values, excellences, or understanding, and may include combining different types of information you have. The observable change in the way that you communicate and apply information and the way that how you put ideas and information together is also involves learning. Therefore, educators' tray to improve learning process in educational institutions for applying meaningful, reflective, and up- to- date learning environment. As today the aim of education is to develop student's ability in learning to learn. The ability to follow and insist in learning is "learning to learn". In other to achieve this aim one should know the way how to acquire, manage, and select the right strategies of retaining the knowledge. Thus teachers are responsible to direct students for using different skills and strategies in their learning processes. In turn, students require know the knowledge and strategies, which will help them to become capable lifelong learner in their learning process. Therefore, In order to acquire knowledge the learners use different strategies, that one of them is self-regulated learning strategies that emerged in the 1980s.

In self-regulated learning learners plan, organize, adjust, and monitor their learning process. Monitoring activities are involves check and analyze the content of study, judge about learning difficulties, recognize and predict about learning outcome. Self-regulated learning strategies is away in which the students apply their own effective skills, such as self-planning, self-monitoring, self-directing and self-controlling (Zimmerman, 1989). Self-regulated learning are a type of strategies that individual direct their attempts to acquire knowledge without dependence to others or teachers

(Zimmerman, 1986). Self-regulated learning can assist learners to create better learning behavior and make stronger their study skills (Wolter, 2011).

Moreover, it is important for teachers to be aware and familiar with factors that affect learners' abilities. Self-regulated learners evaluate and monitor their educational progression and achievements (Bruin, Thiede and Camp, 2001). Several studies also conducted with respect to gender differences in self-regulated learning, (Temi, 2005) examined gender difference among 198 undergraduate students of university of Northeastern U.S.A. to explore self-regulated learning strategies of meta-cognition, analytical and thinking organization, teamwork, time management and effort with respect to gender difference. Data is collected using Motivated Strategies for Learning Questionnaire (MSLQ) and analyzed by employing multivariate variance analysis. The study found that there was no significant difference found between male and female students with respect to usage of self-regulated learning strategies.

Purdie, Hattie, and Douglas (1996) conducted a study about Student conceptions of learning and their use of self-regulated learning strategies: the result shows that Australian students have a narrow prospective, they are more focus learning in school and Japanese students not focus just in school they have a broader. For them, learning is not what is going on in school, they seen as a lifelong learning. However, in spite of these differences the strategies used by Japanese students and Australian are same. In total learning as "understanding" is the conception use of strategies between Australian and Japanese students.

Zahidi (2012) conducted a research on English language students in order to investigate how language learners apply self-regulated learning strategies for completion their classroom work and to explore personal and contextual factors

which act as a facilitators and constraints of the learner's self-regulation. The study showed that personal and environmental factors significantly influence student's use of strategies in language learning.

Change (2007) conducted a study about the applying self-regulated learning strategies in a web-based instruction—an investigation of motivation perception. The study explored that SRLS assist learners to set goals, monitor and evaluate their effectiveness to improve their learning motivations into one semester web base course. The study analyzed that SRLS impact on learner's motivation and they found more benefited from these strategies. Learner that used self-regulated learning were more responsible, challengeable and become more confident in learning materials of the course and their performance were better than students that did not use self-regulated learning strategies.

Wolters (1998) conducted a study about Self-regulated learning and college students' regulation of motivation and the study claimed that students adjust and control their level of learning by using cognitive, motivational, and volitional strategies. The uses of these strategies were different across three motivational problems that presented and those different directly related to their goal setting, course grade, and use of cognitive strategies.

Rijavec and Brdar (2002) conducted study about coping with school failure and self-regulated learning. The study explored whether it is possible to classified students in group according to their learning strategies to assess the relationship between different elements of self-regulated learning and coping strategies with school failure and they find that these classified groups differed among all components of self-regulated learning and school achievements so they concluded that coping school failure could be useful in future research.

Banarjee and Kuma (2014) studied about self-regulated learning and academic achievement among the science graduate students and they founded that self-regulated learning has a positive relation with academic achievement and in different dimensions of the self-regulated learning science graduate students male and female do not differ but, at environment they differ significantly.

Bergin, Reilly and Traynor (2005) conducted a study about examining the role of self-regulated learning on introductory programming performance and the result shows that those students that are used more metacognitive they perform well in programing and resource management strategies than those students that are not used more metacognitive. In addition, those students that has high levels of intrinsic motivation and task value they perform better in programing and use more metacognitive than students with low levels of intrinsic motivation and task value.

Schneider (2014) studied about self-regulated learning in teacher education—the significance of individual resources and learning behavior and the result shows, that evaluation of the courses does not guarantee for a learning outcome, it just focusing in estimation of the quality of the courses. Also, the

result point out that it is important to tack several factors in evaluation studies factors in account to analyze the effects of education and the characteristic of the learner should be taken in account.

Radovan (2010) conducted a study about the influence of self-regulated learning and age on success in studying and the finding revealed that cognitive and metacognitive strategies often use more by older students and the use of these strategies directly connected with self-efficacy, goal setting, and the learning material. Among all the factors that effect in study achievement, self-efficacy, age of the students and effort regulation strategies are most important.

Chen (2002) conducted a study about Self-regulated learning strategies and achievement in an introduction to information systems course and applied the motivated learning questionnaires (MSLQ) to assess college student's self-regulated learning. The finding showed that on learning computer concepts peer learning had a negative effects and effort regulation had a positive effects. The finding on effective strategies to learning computer concepts were inconclusive and for further research it is need to examine the appropriateness of MSLQ in assessing self-regulated learning strategies.

However, Self-regulated learner takes the responsibility for, directs and regulates own learning. it is general engagement studying involving numerous parts of the brain and it consists of full attention and awareness, as well as self-awareness, introspection and truthful self-assessment. SRL is making use of learning techniques to enhance academic achievement (Sadler, Friedlander, Harris, Frizzelle and Graham, 2005). Zimmerman and Pons (1988) described self-regulated learning as actions directed at obtaining facts or ability that includes organization, purpose, goals, and instrumentality self-perceptions with the aid of a learner. They also mentioned that self-regulated learning seeks to provide an explanation for learner differences in motivation and success based on a common set of processes.

In keeping with the Pintrich's version (1999), self-regulated learning strategies may be classified into 3 general types: (1) cognitive learning strategies, (2) metacognitive and self-regulatory strategies, and (3) resource management strategies. The present study will based totally in this version.

2. Cognitive Learning Strategies

Cognitive strategy is a concept that is used in cognitive psychology which explains how a learner thinks, process, perceive, judge and remember the information. Cognitive strategies are related with behaviors and cognitive process that students apply during studying to complete their particular task or to reach in a purpose that have in their academic subject (Boekaerts, 1996). A cognitive approach refers to the cognitive, effective and behavioral procedure people apply to obtain their desires and to evaluate the outcomes in their actions" (Heikkila & Lonka, 2006, p.102). In a studying environment, cognitive strategies may be described as any cognitive approaches or operations students employ to carry out an educational project or to acquire, preserve, and retrieve

different forms of expertise and overall performance (Pressley et al., 1995). They also can be defined as the strategies students use to select, arrange, and combine information with their existing know-how (Weinstein & Mayer, 1986). Researchers identified numerous cognitive strategies learners apply to perform an academic project, and several researchers proposed categories to classify these strategies (Vermunt & Vermetten, 2004).

Rehearsal, memorizing, elaboration, organizing and transforming are the cognitive learning strategies identified by Weinstein and Mayer (as cited in Pintrich, 1999, p. 460).

Rehearsal techniques contain the "recitation of items to be found out or the saying of words aloud as one reads a piece of text" (Pintrich, 1999). An example of the rehearsal activity is while students highlight or underline important information in the text and keep this information active in the working memory. An example of memorizing is "In preparing for a math test, I keep writing the additives down till I remember it." (Zimmerman, 1989).

Elaboration strategies are the techniques through which the learner builds an internal connection among what's being discovered and former knowledge. Specific strategies include "paraphrasing or summarizing the material to be learned, creating analogies, generative notice-taking, and question asking and answering (Pintrich, 1999).

Organizing and transforming is a deeper processing method, it includes a few activities such as "deciding on the main idea from text, outlining the text or material to be learned, and the usage of a variety of particular strategies for selecting and organizing the ideas in the material (e.g. sketching, a network or map of the essential ideas, figuring out the prose or expository structures of texts)" (Weinstein & Mayer, 1986).

3. Metacognitive and Self-Regulatory Strategies

Metacognitive Strategies talk to the conscious monitoring of one's cognitive techniques to obtain particular goals, as an example when students ask themselves questions about their works and after that take a look at how well they answer those questions (Flavell, 1981, p. 273). Metacognitive understanding is used to monitor and alter cognitive processes which includes reasoning, comprehension, problem solving, getting to know and so on (Credé and Phillips, 2012). Because metacognition has a predictive function in successful studying, it is applicable to have a look at metacognitive activity to determine how learners can better employ their cognitive sources through metacognitive control. Metacognition consists of many dimensions of learner improvement, ranging from academic talents to awareness of the self as learner.

However, maximum researchers agreed that the terms cognition and metacognition discuss with qualitatively exceptional phenomena: the former refers to abilities that are essential to carry out a cognitive project and the latter refers to abilities which can be important to monitor and manipulate how the project is completed (Schraw, 1998). Although there are numerous definitions of metacognition inside the literature,

those definitions include numerous common factors, which are: (a) records about cognition, (b) manipulate and regulation of cognitive activities, and (c) attention of mental activities and contents (standards). More specifically, metacognitive techniques are used to choose right techniques and sources to carry out a cognitive project and to display and verify the task overall performance (Schraw, 1998; Schraw & Mosham, 1995).

Numerous studies suggested that metacognition plays an essential role in choosing and the use of cognitive techniques demanded by way of numerous learning obligations. For instance, in a study with 366 undergraduate students, metacognitive monitoring become suggested as being highly 38 related to students' use of deep-degree cognitive techniques (Heikkila & Lonka, 2006). Romainville (1994) discovered that students with high metacognition were aware about the cognitive techniques they used and had been able to describe the cognitive process in which they engaged. These studies suggest that being aware about the cognitive techniques which might be available and being able to use them in the best time and way seems to be a function of metacognition.

Research recommend that students adapt and change their cognitive processing primarily based at the information provided through metacognitive activities (Pintrich, Wolters, & Baxter, 2000). Metacognitive techniques are used to devise, monitor, and adjust the cognitive procedure (Pintrich & Schrauben, 1992; Pintrich et al., 1993). Therefore, students with high metacognitive method use is probably more likely to effectively adjust their cognitive processing and for this reason restructure their alternative conceptual understandings.

There are three general strategies of metacognitive that include planning, monitoring, and regulation identified by (Pintrich, 1999).

Planning activities include "setting goals for studying, skimming a text before studying, generating questions before studying a textual content, and doing a task analysis of the problem" (Pintrich, 1999).

Monitoring is a process in which "the learners will become aware of his or her state of cognition, motivation, emotions, use of effort and time, similarly to conditions of the task and of the context" (Montalvo & Torres, 2004). Monitoring activities consist of paying attention at the same time as reading a text or listening to a lecture, asking questions to see whatever he/she has understood what has been read (Pressley & Afflerbach, 1995, as referred to in Montalvo & Torres, 2004, p. 6), and the usage of test-taking strategies. Regulating involves such processes as adjusting reading rate, rereading, reviewing, or utilizing test-taking tactics (Pintrich, 1999).

4. Resource Management Strategies

The resource management strategies concern the quality and quantity of the task involvement. Strategies include resource management, study environment management, effort management, and support of others. Resource management involves the process of developing well-defined goals and scheduling the course to obtain the best results. Scheduling is

the process by which the student defines a specific time or creates a daily ritual, a weekly pattern, or some other type of arrangement. In fact, in qualitative study and determined that most students scheduled distance education courses into their agenda and developed study patterns to help them succeed. A quantitative study conducted by Miller (1997) determined that students who earned an "A" were more likely to view the videotape in a distance education course as they received the tape. In this case, the students scheduled the video tape arrival as the designated time to complete the coursework.

Time management: another component of students' learning includes their use of time. Time management includes scheduling, planning, and managing one's study time. Studies found that time planning and control training helped learners to better self-adjust their use of study time and, in turn, improved students' grade-point average sought to decide a link among student time management and cumulative grade point average (GPA) in school students. According to MoKachie et al. (1980). "The nature of the setting is as important as the fact that the student recognizes that this particular location is set aside for Studying". Thus, the student must designate a defined, quiet, and organized area in which to study. In a study conducted by Bernt and Bugbee (1990), 72-75% of students reported very frequently or almost always studying in a quiet place without interruption. However, no significant differences in achievement were attributed to environment.

Effort management & Support of others this is the process by which a learner utilizes tactics such as attribution to effort, mood, self-talk, persistence, and self-reinforcement. However, these specific tactics are merely components of a more important tactic. They are geographically isolated from the traditional learning environment and have accepted responsibility for their own learning. Few studies have shown the importance of motivation in the education environment. One study, conducted by Oxford, ParkOh, Ito, and Sumrall (1993), determined that motivation was the most significant determiner of achievement in teaching a second language using satellite television. Conversely, many motivational models exist for college student learning (McKeachie et al., 1986). For example, a study conducted by Sinkavich (1991) determined that motivation was one of the factors that had a significant impact on classroom performance. Students must learn to utilize this support by seeking help from other students and the instructor.

5. Characteristics of Self- Regulated Learners

Pintrich (1995) believes that self-regulation is not a long-lasting measure of intellectual intelligence after a certain point in life, nor is it a personal function that is genetically based or shaped early in life. Self-reflection and experience are the components that students learn self-regulation through them (Zimmerman, 1998). Students can manage their behaviors and affect to enhance their academic learning and overall performance because self-regulation is not an individual trait (Pintrich, 1995). Zimmerman (2001, 2002) those individuals who take an active component in their learning process from the metacognitive to motivational and behavioral perspective is characterizes as self-regulated students. Studies show that

students who self-regulated their learning depict the following characteristics (Montalvo & Torres, 2004).

1. Learners are familiar with a series of cognitive techniques which includes repetition, elaboration, and organization and recognize how to use them. by doing so, they are in a position to attend to, transform, control, elaborate and recover information.
2. Learners are able to apply the metacognition techniques to plan, manage and direct their mental processes toward the achievement individual goals.
3. learners display a series of motivational beliefs and adaptive feelings, for example, a high sense of academic self-efficacy, in which they accept as true with they have the capability to have good performance, the adoption of learning goals, the development of positive feelings towards tasks, (e.g. joy, satisfaction, enthusiasm). Besides, they are capable to control, adjust, and modify these beliefs and emotions, to meet the requirements of the task and of the specific learning situation.
4. 4. Students will plan and control the time and effort to be used on task, create and structure favorable learning environments, such as finding a quiet place to study. Besides, when they are facing problems, they will seek help from teachers and classmates.
5. Learners put their efforts to take part within the control and regulation of classroom climate, academic tasks and structure (e.g. how one could be evaluated, responsibilities requirements, the design of class assignments, organization of working groups), within the quantity that the context allows it.
6. Volitional strategies are apply by the learners while performing academic duties, aimed at avoiding external and internal distractions. They do so in order to maintain their concentration, effort and motivation.

6. Objectives of the study

Purposefully, the aim of the study was.

1. To find out the residence differences in the usage of self-regulated learning strategies of high school students.
2. To find out the gender differences in the usage of self-regulated learning strategies of high school students.
3. To find out the differences between government and private high school students in the usage of self-regulated learning strategies.

7. Hypotheses

1. There is no significance difference between private and government high school students concerning the use of self-regulated learning strategies.
2. There is no significance difference between male and female high school students concerning the use of self-regulated learning strategies.
3. There is no significance difference between rural and urban high school students concerning the use of self-regulated learning strategies.

8. Research Method

The study was descriptive in nature and descriptive survey method has been used by the investigator to collect the relevant information. The investigator used the descriptive survey method as it enabled to obtain the existing and precise information relating to the problem. The proposed problem was intended to find out the level usage of self-regulated learning strategies of high school students in Afghanistan. So, descriptive survey method was justified for the study.

Descriptive survey method enhanced the investigator to draw valid conclusions from the collected information. Descriptive methods in this study lead to measurements, classification, analysis, comparison and interpretation of data. So based on the information collected from the high school students, this study focused on the usage of self-regulated learning strategies of high school students in Afghanistan.

9. Subjects

For the purpose of this study, a total number of 356 school students from 9 different schools (4 private & 5 Government) were randomly selected. From the below table, it can be seen that with respect to gender point of view, there are 183 (51.40%) female students and 173 (48.6%) male students respectively and similarly with respect to residence 264 (74.16) urban students and 92 (25.84) rural students respectively and

also with respect to type of school 103 (28.93) private students and 253 (71.07) government students respectively.

Table 1 Descriptive Information as to the Subjects

SAMPLE CHARACTERISTICS WITH RESPECT SELF-REGULATED LEARNING		
GENDER	N	Percentage
Female	183	51.40
Male	173	48.6
RESIDENCE	N	Percentage
Urban	264	74.16
Rural	92	25.84
Type of School	N	Percentage
Private	103	28.93
Government	253	71.07

10. Result and discussion

Hypothesis (1): There is no significance difference between male and female high school students concerning the use of self-regulated learning strategies.

In order to calculate the significant difference due to gender on the scores of self-regulated learning strategies, t test was applied and the results are presented below in table 2

Table 2 Gender wise differences in SRLS

Dimension	Group	N	Mean	SD	t-vale	Df	p-value	Result
SRLS	Male	173	5.473	0.676	-7.505	354	.000	H0: Rejected
	Female	183	5.950	0.515				

*0.05 level of significance

From table 2 it is clear that mean value of male students is 5.473, SD is 0.676 which is not higher than the mean value of female students 5.950, SD is 0.515. The calculated t-value is -7.505 which is significant at 0.05 level of significance, (p-value .000). So it can be interpreted that there is significant difference among male and female high school students in their concerning the use of self-regulated learning strategies. The female students' probabilities use more SRLS in comparison to male students. So the null hypothesis stating that "There is no significance difference between male and

female high school students concerning the use of self-regulated learning strategies." is rejected.

Hypothesis (2): There is no significance difference between rural and urban s high school students concerning the use of self-regulated learning strategies.

In order to calculate the significant difference due to residence on the scores of self-regulated learning strategies, t test was applied and the results are presented below in table 3.

Table 3 Residence wise differences in SRLS

Dimension	Group	N	Mean	SD	t-vale	Df	p-value	Result
SRLS	Urban	264	5.811	0.601	4.780	354	.000	H0: Rejected
	Rural	92	5.449	0.689				

*0.05 level of significance

From table 3 it is clear that mean value of urban students is 5.811, SD is 0.601 which is higher than the mean value of rural students 5.449, SD is 0.689, t-value is 4.780 which is significant at 0.05 level of significance, (p-value .000). So it can be interpreted that there is significant difference among urban and rural high school students in their concerning the use of self-regulated learning strategies. The urban students use more SRLS when compared to rural students. So the null

hypothesis stating that "There is no significance difference between rural and urban high school students concerning the use of self-regulated learning strategies." is rejected.

Hypothesis (3): There is no significance difference between privet and government high school students concerning the use of self-regulated learning strategies.

In order to calculate the significant difference due to type of schools on the scores of self-regulated learning strategies, t

test was applied and the results are presented below in table 4.

Table 4 School wise differences in SRLS

Dimension	Group	N	Mean	SD	t-value	Df	p-value	Result
SRLS	Government	253	5.777	0.637	2.748	354	.006	H0: Rejected
	Privet	103	5.572	0.641				

*0.05 level of significance

From table 4 it is clear that mean value of government students is 5.777, SD is 0.637 which is higher than the mean value of privet students 5.572, SD is 0.641, t-value is 2.748 which is significant at 0.05 level of significance, (p-value .006). So it can be interpreted that there is significant difference among government and privet high school students in their concerning the use of self-regulated learning strategies. The government students' probabilities use more SRLS in comparison to privet students. So the null hypothesis stating that "There is no significance difference between privet and government high school students concerning the use of self-regulated learning strategies." is rejected.

The result shows that there is significant difference among male and female, urban and rural, private and government high school students in concerning the use of SRLS as a whole. The female are use more SRLS compared to the male high school student, the government high school students use more SRLS compared to private, and the urban secondary school students use more SRLS compared to rural high school students.

11. Conclusion

The research intended to bring attention to the identification of the gender, residence and type of schools differences in the use of self-regulated learning strategies in their process of their studying among high school students in Afghanistan. The finding of the study revealed that.

1. There exists significant difference between male and female students on concerning the use of self-regulated learning strategies. Female use more SRLS compared to male.
2. There exists significant difference between private and government students on concerning the use of self-regulated learning strategies. Government use more SRLS compared to private.
3. There exists significant difference between urban and rural students on concerning the use of self-regulated learning strategies. Urban use more SRLS compared to rural.

12. Limitations

Research has always some limitations. That is true in the research studies includes human behavior because at the time of data collection any individual can try to conceal his negative aspects. The present study also has some limitations to the following.

1. The present study was delimited to nine high schools (five Governments and four private) of Herat province of Afghanistan.

2. Due to shortage of time the investigator delimited the study to three hundred fifty six high school students only.
3. The time constraint from the schools in allowing the students to fill the questionnaire may have lead the students the questionnaire in time pressure hence not given enough time to think and analyze for the answer.
4. Since a new session is started in all the schools, the data could not be collected in adequate number.
5. The study was delimited to rural and urban high schools.
6. The study was delimited to 12th class students of high school only.

13. Recommendation

Keeping in views the finding of the study the following recommendations are hereby put forward for the teachers and academics to improve self-regulated learning strategies of the students.

- 1) All the institutions should familiarize their instructors with different components and knowledge of self-regulated learning and other learning strategies.
- 2) Conduct training for pre-service and in-service teachers for better understanding of learning strategies and teachers guide their students for using better learning strategies in the process of their learning.
- 3) Guide learners to using different types of cognitive, meta-cognitive and SRL strategies in their process of their learning to become independent learner.
- 4) Teacher should create conducive environment at the school, this will help to improving SRLS among school students.
- 5) Development of SRLS should be integral part of curriculum as well as pedagogy of all the teacher training programs.

14. Suggestions for further study

The survey has never completed the process. Each researcher after completing their research is aware of the areas where more research is needed and, of course, is motivated to indicate the area that another researcher can use for research. The present study was conducted to study the professional decision on high school students in relation to self-regulated learning strategies. The researcher at the end of the study suggests the following:

1. The study can be conducted for other level of education like higher education.

2. The similarly study can be conducted for other provinces.
3. The study can be conducted by taking other psychological variables to found the relationship between them.
4. The study can be conducted on large sample to get reliable results

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