

Impact of Academic Self-concept and Self-regulated Learning on Academic Achievement of Students

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Abstract



This study was designed to know impact of academic self-concept, and self-regulated learning on academic achievement of the secondary school students of government and private sector. The objectives of the study were: to explore perception of students about their self-concept, self-regulated learning. To find out the impact of self-concept on academic achievement of the students, To find out the impact of impact of self-regulated learning on academic achievement of the students. To establish the impact of impact of self-concept, and self-regulated learning on academic achievement of the students. The study consisted of 400 students duly divided into different strata by using stratified random sampling. This study was attained through a descriptive survey method and used set of questionnaires for data collection. It was found that self-concept had significant positive effect on academic achievement, self-regulated learning also has positive effect on academic achievement. In the light of the finding's researcher recommended that curriculum maker should include such activities and experiences in the curriculum through which learner can boost their self-concept and develop the habit of self-regulated learning.

Keywords: Academic Achievement, Academic Self-concept, Self-regulated Learning

Introduction

In recent era, the concept of academic achievement gets more importance in school, college, and universities and academic achievement of students is actually reflecting accomplishments of educational values because it reflects students learning consequences (Jaiswal & Choudhri 2017). There are numerous aspects which affect the academic achievement of the students. One of important factor which is accountable for learner's academic performance is their self-concept (Kang, Keinonen, & Salonen, 2021). Academic self-concept is related to attitude believes, and thoughts related to their understanding of any subject or class lecture in school (Chan, & Bauer, 2015). Students' self-concept plays a vital role to adjust themselves in school during childhood and adolescent and leads towards their success (Usán Supervía, Salavera Bordás, & Lorente, 2020). Positive self-concept is necessary for learners to achieve success in examination (Tus, 2020). The other factor which equally affects the academic achievement is the self-regulated learning. Alafghani and Purwandari, (2019) suggest students who have self-regulated learning skills can face the academic challenges with courage and can help in realization of their academic goals. The more the usage of self-regulated learning, the more the educational achievements for students of the school (Wolters, & Hussain, 2015). Self-regulated learning produces new learning opportunities for school going pupils which may give them good results and improve their performance in education (Li, 2019). Self-regulated learning is a major method which is helpful for both levels basic and advanced levels in the learning process (Winne, 2018). There is noteworthy strong relationship of self-regulated learning with education attainment in learning process (Li, & Zheng, 2018). Lung-Guang, (2019) explored that self-regulated learning is an amalgamation of theoretical education skills and control over self which makes intake of information or learning of new thing easier, so pupil get extra motivation to acquire new knowledge or information. According to Pravesti, Wiyono, Moenindyah, Triyono, & Atmoko, (2020) learners who have self-regulated learning habit also have ability to learn and learners who have self-regulated

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learning skill can easily get achievement than those learners who do not have self-regulated learning skill.

Research Objectives

1. To explore perception of students about their self-concept, and self- regulated learning.
2. To investigate the influence of self-concept on academic attainment of the students.
3. To documents the influence of self-regulated learning upon academic achievement of the students.
4. To find out the influence of self-concept, and self- regulated learning on academic achievement of the students.

Research Questions

The current research answers to these specific questions;

1. What students perceive about their self-concept?
2. What students perceive about their self- regulated learning?
3. What is the influence of self-concept, on academic achievement of the students?
4. What is the influence of self-regulated learning on academic achievement of the students?
5. What is the influence of self-concept, and self- regulated learning on academic achievement of the students?

Review of Related Literature

Self-Concept

Desforjes, & Abouchaar, (2003) recommended that Self-concept and accomplishment are enthusiastically collaborating and familiar, each one is equal in support to the degree that when a constructive (or undesirable) variation occurs in one actual simplifies suitable modification in the other and self-concept is exceedingly connected with educational achievement. Van Canegem, Van Houtte, & Demanet, (2021) elaborated that students who have high academic self-concept perform their academic activities with self-confidence and achievement of those tasks enforce and attaining them. It is established that some mental influences, like self-concept shows a main part in establishing the educational accomplishment of learners (Shah, 1990). Therefore, it is obligatory for the researcher to decide that high self-concept positively effects the educational accomplishment of learners and the contrary variable for high educational self-concept for learners is low educational self-concept (Craven, 2008).

Self-Concept and Academic Performance

A study by Tentama, & Abdillah, (2019) revealed that self-concept is the important factor for the academic performance and students who want to participate well in their examination should have good self-concept (Guay, Stupnisky, Boivin, Japel, & Dionne, 2019). In Pakistan our students are not much aware with self-concept and academic performance (Ahmed, & Zaman, 2019), but different studies found that students with truncated academic performance could be associated with unfortunate self-concept (BHATTI, 2019). Students with successful academic self-concept are largely intellectualized, recognized with domain of academics and more accomplished as compare with unsuccessful academic self-concept students (Magnano, Boerchi, Lodi, & Patrizi, 2020), Although, for successful academic performance positive self-concept is a mandatory part of academic achievement (Herrera, Al-Lal, & Mohamed, 2020).

According to research of Lilla, Thürer, Nieuwenboom, & Schüpbach, (2021) educational self-concept and educational accomplishment be certainly interconnected with each other and can be measured by average rating, and their best determinant is academic self-concept. Academic self-concept refers students' conceptual approach, body language of students, listening attitude of lectures, personal attitude and their enjoyments of classes, these characteristics are essentially playing very significant role to regulate students in lecture hall through leading the student's determinations toward academic achievement (Haktanir et al. 2021). Theory of self-concept is composed of two factors namely personal identity, and social identity (Tajfel, Turner, Austin, & Worchel, 1979).

Möller et al. (2020) accomplish the study to examine self-concept and educational accomplishment of the learners at high school level and the outcomes of the evaluation unveiled an important link among self-concept and educational accomplishment. Easterbrook et al. (2020) found that self-concept and educational accomplishment was seen between learners in various sector of the institution, namely, provincial, high school, and central board schools. Kumari, & Chamundeswari,

(2013) elaborated that complete outcomes in the earlier research and lack of research in the Indo-Pak perspective had started more analysis of self-concept and educational accomplishment of the learners.

Self Regulated Learning

Self-Regulated learning (SRL) is an imperative procedure in the process of learning both at basic as well as advanced levels (Alvi & Gillies, (2015). Self-Regulated Learning is a cognitive learning approach (Dörrenbächer-Ulrich, Weißenfels, Russer, & Perels, 2021). Won, Shensley, & Wolters, (2021) suggested that the practice of Self-Regulated learning has a vital relationship among educational success. Self-regulated learning make learning easier because it is an amalgamation of academic learning skills and self-control, so learner get motivation to learn. Sebesta, & Bray Speth, (2017) declared that learners with self-regulated learning skills are more willing to be taught, mention that learner with self-regulated learning habit are succeed in academic learning than learners who do not have self-regulated learning habit.

Yen, Chen, Wang, Chen, Hsu, & Liu, (2018) explore that student with self-regulated learning skills metacognitively, inspire, carry out themselves to give plan and road map for their own try to increase information. Latipah, Kistoro, & Putranta, (2021) examined that parental sustain, educate, give confidence, make possible use of good strategies, and other process to support learners self-regulated learning. El-Adl, & Alkharusi, (2020) elaborated self-regulated learning boost student's motivation through which their educational success increase. Effeney et al. (2013) explores that it is a significant part of teaching learning process and becomes student self-regulatory and affect student educational success. Casem (2006) states that increase of self-regulated learning process plays a main task for learners to extend themselves as good or bad learner.

Research Methodology

This part presents a description of the research methodology, more specifically, the research design, population of the research, variables under investigation, sample size and technique, research instrument, pilot study, reliability, collection of data and its analysis.

Research Design

The descriptive survey approach was used in this research. Casula, Rangarajan, & Shields, (2021) explains that survey approach is associated with deductive methodology, a common and eminent strategy in education and frequently used to answer the questions like who, what and where. He also pointed out that questionnaire as a mean of data collection is associated with survey approach.

Population of the Study

Therefore, in this study population composed of main secondary schools' students (boys/girls) private and public schools of Districts Haripur. According to Annual Statistical Report 2020-2021 prepared by education management information system of Elementary and Secondary Education Department KPK the district Haripur. Population comprises of 618 Schools (154 public schools at secondary and 464 registered private schools. Population consists of total 14586 students both from (10434 public sectors and 4152 private sector).

Sample Size and Techniques

The researcher selected 400 students as a sample that will be representative of the population. The sample selected from both male and female students who belong to both private and public school. 200 male students and 200 female students were selected from both sectors. Stratified random sampling technique were used to collect data.

Research Instrument

The research instrument for academic self-concept was developed by Liu and Wang (2005) was adopted for the purpose of data collection. This instrument consists of 20 items with the options of yes, no, no always, no sometimes, yes sometimes, yes always. the research instrument for self-regulated learning developed by Gaumer Erickson and Noonan (2018) was adopted for the purpose of data collection. This instrument consisted of 22 items with the option of Not like me at all, not much like me, somewhat like me, mostly like me, very much like me. These factors have been measured on five-point scale.

Pilot Study

Before the start of actual data collection process pilot study was conducted. Tools were pilot tested among non-sample population of 50 students of five public and five private schools of both boys and girls.

Reliability

The present study used Cronbach alpha coefficient to test the reliability of the measurement (questionnaire). The Coefficient of Cronbach alpha reliability for self-concept was 0.803 and for self-regulated learning was 0.912.

Data Collection

Data was collected through the questionnaires. The researcher personally visited the schools and administered the questions to the sample students.

Data Analysis

Data collected through the questionnaires and in the light of the study objectives it was tabulated analyzed and interpreted by applying statistical techniques of mean, standard deviation, and multiple regression analysis.

Ethical Consideration

The researcher informed voluntary participation through informed consent. The researcher avoided any action or word that could harm the participant. Confidentiality was ensured and respondent was assured that the information you will be provided will not be shared with anyone in any case. It will just be used for research purpose.

Result and Discussions

The data was analyzed through descriptive statistics, correlation coefficient and SPSS version 16.

Table 1**Descriptive Statistics of Self-Concept and Self-Regulated Learning**

	N	Minimum	Maximum	Mean	Std. Deviation
Academic self-concept	400	1.00	5.50	2.6029	.87998
Plan	400	1.00	5.00	3.7250	.83913
Monitor	400	1.00	5.00	3.7046	.79016
Adjust	400	1.00	11.17	3.7196	.86617
Reflect	400	1.00	5.00	3.8205	.72608
Valid N (listwise)	400				

Table 1 illustrate Mean and St. Deviation about self-concept. It was found that mean of academic self-concept is 2.6029 (St. Dev = .87998). Table 3 illustrate that mean score of Plan is 3.7250 (St.Dev.83913). The mean score of monitors is3.7046 (St. Dev .79016).The mean score of Adjust is 3.7196 (St. Dev =.86617). The mean score of Reflect is 3.8205 (St. Dev = .72608). Here, reflect plays an important role in self-regulated learning.

Table 2**Self-Concept and Academic Achievement**

	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	287.297	12.143			23.660	.000
Academic Self concept	12.817	4.420	.144		2.900	.004
.144 ^a	.021	.018	8.409		.004 ^a	

a. Dependent Variable: Marks

Table 2 highlight the value of R is .144 and ($<.021$) as the value of R^2 which reflect that self concept explain 2.1% variation in academic achievement. Table 2 shows the F value of 8.40 and alpha .004 shows correct estimate between the variables of the study. Table 2 describes that Beta value of 12.817 shows that academic self concept has a significant positive effect on academic achievement as reflected by the value of $t= 2.900$ and alpha of .004.

Table 3**Self-Regulated learning and Academic Achievement**

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	254.908	23.332			10.925	.000
Plan	11.095	6.645	.119		1.670	.096

Monitor	11.283	6.886	.114	1.639	.102
Adjust	1.440	6.094	.016	.236	.813
Reflect	-5.950	6.445	-.055	-.923	.356
.198 ^a	.039	.030	4.041	.003 ^a	

a. Dependent Variable: Marks

Table 3 highlights the value of R as .198 and the value of $R^2 = .039$ which shows that Reflect, Monitor, adjust and plan explain 3.9% variation in academic achievement.

Table 3 shows the F value of 4.04 and alpha .003 shows correct estimate between the variables of the study Table 3 describes that one unit increase in plan brings.119 units increase in academic achievement which shows that plan has significant positive effect on academic achievement as shown by T value of 1.670. It indicates one unit increase in monitor bring 11.283 in academic achievement of the students that shows monitor has positive insignificant effect as shown by T value of 1.639. It also indicates one unit increase in adjust bring 1.440 in academic achievement of the students which shows that plan has insignificant positive effect on academic achievement as shown by T value of .236. It also describes that one unit increase in reflect bring -5.950 in academic achievement of the students. Which show that reflect has insignificant negative effect on academic achievement as shown by T value of -.923.

Table 4

Self Concept, Self Regulated Learning and Academic Achievement

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
1 (Constant)	172.622	34.441			5.012	.000
Plan	5.764	6.548	.062		.880	.379
Monitor	10.092	6.790	.102		1.486	.138
Adjust	2.455	5.940	.027		.413	.680
Reflect	-4.301	6.316	-.040		-.681	.496
Self-Concept	14.277	4.360	.160		3.274	.001
.380 ^a	.144	.109	4.043		.000 ^a	

a. Dependent Variable: Marks

Table 4 highlight the value of R as .380 and the value of $R^2 = .109$ which shows that Academic Self Concept, Monitor, Plan and Desire explain 10.9% variation in academic achievement. Table 4 shows the F value of 4.043 and alpha .000 shows correct estimate between the variables of the study. Table 4 describes that one unit increase in plan brings 5.764 units increase in academic achievement which shows that plan has insignificant positive effect on academic achievement as shown by T value of .880. It indicates one unit increase in monitor bring 10.092 units increase in academic achievement of the students that shows monitor has positive insignificant effect as shown by T value of 1.486. It also indicates one unit increase in adjust bring 2.455 unit increase in academic achievement of the students which shows that adjust has insignificant positive effect on academic achievement as shown by T value of .413. It also describes that one unit increase in reflect bring -4.301 in academic achievement of the students which shows that reflect has insignificant negative effect on academic achievement as shown by T value of -.681. Table describes that one unit increase in academic self-concept brings 14.277 units increase in academic achievement which shows that academic self-concept has significant positive effect on academic achievement as shown by T value of 3.274. It describes that one unit increase in excellence brings 26.833 units increase in academic achievement which shows that excellence has significant positive effect on academic achievement as shown by t value of 3.810.

Discussion

The results of current study show that academic self-concept, and self-synchronized learning has well-built collision on academic success of secondary school students. JI, and WANI, (2018) also found that academic self-concept affects the academic success of students and there is direct relation between self-concept and academic success of the secondary school students so, the outcome of their study go with the results of our study. Jian-Peng Guo et al (2022) established that academic self-concept positively affects the academic success of the students as shown by results and their study

supports our study that students who have high level of academic self-concept execute better in their studies. Guay et al. (2003) concluded that positive academic self-concept reinforces students to be motivated separately in school and classroom and obtained high grades.

Kumari, & Chamundeswari, (2015) initiated that there is a considerable and positive relationship between self-concept and academic success of students at the higher secondary level. She initiates that students who have high academic self-concept complete their academic activities with self-confidence and getting of those tasks enforce and achieving them. Hay, Ashman, & Van Kraayenoord, (1998) elaborated that when evaluate subjects with a high self-concept with other subjects with low self-concept, teacher reports show that they think the students with high self-concept are more accepted, helpful, and regular in class work, with lower worry levels, more cooperative for families and future higher hope for success.

Fauzi and Widjajanti (2018) self-regulated learning is a strategy that is very influential on student achievement. Ejubovic, & Puska, (2019) found that self-regulated learning effects the academic achievement and it is an approach which is very influential for the academic achievement of the student. The result of their study is similar with result of our study. Students who have self-regulatory habit perform better in their studies as compared to those who have low self-regulation skills (Baumeister, & Leary, 1995). Murphy and Alexander (2000) declare that students with self-regulated learning skills are more willing to learn, mentioned that students with self-regulated learning habit are mostly succeed in academic learning than students who do not have self-regulated learning. According to Zimmerman, (2013), self-regulated learning boost students' motivation through which their educational success increase. Hakiki and Rembulan (2019) expressed that there self-regulated learning has positive effect on academic achievement on Hafiz students. Generally, the ability of self-regulated learning increases academic achievement when someone is at the higher education level. So student's academic achievement is influenced by self-regulated learning variable.

Conclusion

It was concluded that students' success revolves around academic self-concept, and self-regulated learning. This study show that academic self-concept had profound influence on academic achievement of students. In a similar way self-regulated learning show profound impact on academic achievement of secondary school students. Among self-regulated learning aspect, it was found that plan is the major contributing factor which had profound influence on academic achievement of students .this study show that students who had plan to achieve academic goals brings good results in their study.

Recommendations

The result of the study proves that there is significant positive effect of academic self-concept academic motivation and self-regulated. Therefore, it is recommended that;

1. Curriculum maker should include such activities and experiences in the curriculum through which learner can boost their self-concept.
2. Book authors play a major role in increasing the self-concept of the learner. The textbooks writer should write such topics and lessons in the textbooks through which will boost the self concept of the learner.
3. The parents should give freedom and environment to their students for the sake of expressing their thoughts and feelings.
4. The teacher should arrange classroom activities in such a way that every student get equal chance for participation.
5. The parents and teacher should arrange such programmed that can motivate the students to improve their self- concept, and habits of self-regulated learning.

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