Innovations

Evaluation of self-regulated learning among secondary school students academic performance

Enwefa, Chiekem Ph.D

Department of Guidance and Counselling
Delta State University, Abraka

Corresponding author: Enwefa, Chiekem Ph.D

Abstract

In self-regulated learning, students are required to continually reflect on their learning by gauging how far they are getting closer to their individual learning goals, with the ability to adjust any plans, monitors, or techniques that might be required for their academic success. The purpose of the study is to assess secondary school students' ability to self-regulate their learning and their academic achievement. Two research questions and two null hypotheses were created for this study. The target population was made up of all SS 2 students enrolled in public secondary schools in the Delta North Senatorial District, and the casual comparative study methodology was used. 450 students were chosen at random from a stratified sample. A self-structured questionnaire created by the researcher was approved by two measurement experts. The results of the study showed a substantial difference in academic achievement between students who engaged in self-regulated learning and those who did not. The results showed that male and female students' involvement in self-regulated learning as it relates to academic accomplishment differed significantly. It was recommended that teachers teach children about self-confidence, goal-setting, and learning objectives in order to improve academic success. Additionally, it was suggested that school administration and teachers promote reflective discourse by providing students with feedback on their successful academic performance and self-regulated learning.

Keywords: 1.*Evaluation, 2.Self-Regulated Learning and Academic Performance.*

Introduction

When learners constantly directs their thoughts and attitude toward achieving their academic goals, self-regulated learning takes place. Activities with specified objectives that stimulate, change, and maintain students' academic advancement are included in their self-regulated learning (Yan,2020). Self-reliant students set clear objectives for their academic issues at school and abide by the rules and policies that help them achieve the best success (Xiao, Yao &Wang, 2019).

Students who are independent create their own learning goals and make sure they are achieved with the help of mentors like instructors, parents, and friends who have the necessary skills. (Lim, Jail, Marof, & Saad, 2020). Students who can maintain their composure are interested in their academic difficulties and use a range of techniques to address them. Self-regulated students are encouraged to engage in active learning in order to meet both short-term and long-term educational objectives, and their performance is evaluated using self-imposed consequences (Asim & Farooq, 2021). In order to improve their learning, these students organise their educational behaviours through self-reflection (Daniel, Wang & Berthelsen, 2016).

Self-regulated learners must be aware of both their personal characteristics and ways of working as well as the requirements of the task at hand. Panadero (2017) claims that self-regulated learning is a general phrase that encompasses key elements that foster learning and permit its research within a thorough and integrated framework. Self-regulating students are more likely to be organised, conscientious, eager, and self-critical. Self-reliant students set goals for their studies, monitor their progress, persevere through difficulties, and recognise the actions that impede their ability to learn (Zimmerman, 2000, Schunk and Zimmerman, 2008). Self-regulated learners are more likely to adopt deep processing learning strategies because they are intrinsically motivated and confident in their capacity to finish academic assignments. They also feature learning-enhancing cognitive, metacognitive, motivational, and behavioural qualities (Stizmann and Ely, 2010; Zimmerman, 2011; Bertrams and Dickhauser, 2012).

It has been shown in studies by Boruchovitch and Ganda (2013) and Marini and Boruchovitch (2014) that students who struggle in school perform poorly academically after they are accepted into colleges. These groups of students have the knowledge and core skills required for admission, even though some of the students lack the aptitude to succeed in the programme they have been admitted into at the higher institution. The inability of these students to manage their own learning is the cause of their subpar academic achievement (Brunstein and Glaser, 2011). Educational programmes focused at developing self-regulation, according to Wolters (2010) and Bembenutty and White (2013), converge in three critical areas, including the use of blended learning in course material, implementation at all educational levels, and success for a variety of student types. Self-regulation showed how children may develop their learning abilities, build self-confidence, and lessen behaviours that would prevent them from learning from teachers (Andrzejewski et al 2016). Performance is judged in terms of how closely it follows to the criteria that are provided as reinforcement when it comes to self-regulation. But there are three crucial subprocesses that students can employ to direct their own learning in the classroom. These subprocesses include self-monitoring, self-education, and self-reinforcement. Students' academic performance is improved via self-regulated learning (Dignath & Buttner, 2018). Students who study well on their own initiative, however, perform well in school. This outcome was in line with Samo's (2016) finding that improving self-regulated learning improves kids' math abilities. Students of different sexes (male and female) have varying levels of self-regulated learning depending on how they set themselves up in terms of the learning process. Age, culture, and subject matter all have an effect on how sex influences self-regulated learning, according to Samuelsson and Samuelsoon (2016). They discovered through their research that male students placed a higher importance on mathematics than did female stugents. Pajares (2002) found that female students set more goals, utilise more planning tools, take more notes, and monitor themselves more frequently than male students when it comes to self-regulated learning in the classroom.

The average self-regulation ratings of female students were much higher than those of male students in terms of planning, setting objectives, and lack of self-direction. Female students outperformed male students in ability while using self-regulated strategies such knowledge organisation, metacognition, time management skills, elaboration, and effort, according to Bidjerano's (2005) research. While Zimmerman and Martinez-pons (1990) note that while planning, self-monitoring, setting objectives, and manipulating their learning environment, females tended to employ these approaches more frequently than males. The study's evaluate self - regulated learning among secondary school students' academic performance in Delta State's Delta North Senatorial District.

Statement of the Problem

Students evaluate their learning effectiveness after completing their tasks, and they develop help-seeking behaviours to improve their learning processes. Because their strategies may be poor or unable to change in response to the learning challenge, many students find it difficult to govern their learning. Do secondary schools students self-regulate their learning in the Delta North Senatorial District ?.

Research Questions

1) Does self-regulated learning help secondary school students in the Delta North Senatorial District succeed academically?

2) Does male and female secondary school student in the Delta North Senatorial District engage in self-regulated learning to raise their academic performance?

Hypotheses

1) Students in the Delta North Senatorial District who engage in self-regulated learning do not significantly vary from those who do not in terms of their academic attainment.

2)There is no significant difference in academic achievement and self-regulated learning of male andfemale students in the Delta North Senatorial District.

Methodology

This study was created using a causal comparative research approach.

Population of the Study

All SS 2 students who registered in public secondary schools in the Delta North Senatorial District of Delta State make up the target population.

Sample

The sample consisted of 450 students, 150 from each of the three constituencies (Aniocha/Oshimili, Ika, and Ndokwa/Ukuwani), who were specifically chosen from the three constituencies using stratified random selection techniques.

Research Instrument

A questionnaire created by the researcher and approved by two measurement specialists from Delta State University's Faculty of Education served as the study's instrument. Evaluation of self-regulated learning among secondary school students' academic achievement in the Delta North Senatorial District of Delta State was the subject of the questionnaire. Frequently (4 points), Occasionally (3 points), Infrequently (2), and Never (1) on a four-point scale (1).

Method of Data Collection

The instrument was given to the respondents three weeks after it was created by the researcher and two skilled research assistants. The respondents who filled out the 450 instruments received them. The completed instruments were instantly returned to their starting points

Method of Data Analysis.

The research questions were answered using the mean and standard deviation ratings. The benchmark for making a judgment was the mean, which was 2.50. Below 2.50 was taken as disagreed while mean of 2.50 and above was taken as agreed. At a 0.05 level of significance, the T-test statistic was utilised to evaluate the stated hypotheses.

Results

The study's findings are detailed in the following section:

Research Question 1

Does self-regulated learning help secondary school students in the Delta North Senatorial District succeed academically?

Table 1: Mean and standard deviation of self-regulated learning that help secondary school students in the Delta North Senatorial District succeed academically.

		N = 450		
S/N	**Statement**	**Mean**	**SD**	**Decision**
1.	I set criteria for my test-taking in class.	2.59	1.02	Agree
2.	I hunt for a quiet spot to study at school.	2.72	1.19	Agree
3.	I handle my study time following school.	2.48	0.94	Disagree
4.	I split my study time evenly throughout the week.	2.47	1.04	Disagree
5.	I provide a summary of my class notes in order to analyze the comprehension of what I' ve learned.	2.49	1.07	Disagree
6.	I organize a school group with my class mates	2.34	0.81	Disagree
7.	I seek advice from a more knowledgeable individual to teach me in some subjects.	2.60	1.11	Agree
8.	I offer clarifying questions throughout class Instruction by myself.	2.52	1.23	Agree
9.	I complete more extra exercise in every subjects in addition to the one assigned to me by my teachers	2.48	0.87	Disagree
10.	I also establish daily or weekly objectives as well as monthly or quarterly objectives for my- studies	2.60	1.33	Agree
Total Grand Mean		**2.52**	**1.06**	

Research Question 2

Does male and female secondary school students in the Delta North Senatorial District engage in self-regulated learning to raise their academic performance?

Table 2: Mean and standard deviation of male and female secondary school students in the Delta North Senatorial District engage in self-regulated learning to raise their academic performance.

Statement	N= male		n= female	
	Mean	**S.D Decision**	**Mean**	**SD Decision**
1. I set criteria for my test- taking in class	2.32	0.96 Disagree	2.80	1.02 Agree
2. I hunt for a quiet spot to study at school	2.37	1.16 Disagree	3.00	1.14 Agree
3. I handle my study time following school	2.27	0.93 Disagree	2.65	0.92 Agree
4. I split my study time evenly throughout the week	2.17	0.95 Disagree	2.71	1.05 Agree
5. I provide summary of my class notes in order to analyze the comprehension of what I' ve learned.	2.34	1.05 Disagree	2.61	1.07 Agree
6. I organize school group with my classmates in school	2.23	0.81 Disagree	2.43	0.80 Disagree
7. I seek advice from a more Knowledgeable individual to teach me in some subjects	2.38	1.02 Disagree	2.78	1.15 Agree
8. I offer clarifying questions in class instruction by myself.	2.32	1.26 Disagree	2.68	1.18 Agree
9. I complete more extra exercise in every subjects in addition to the one assigned to me by my teachers.	2.31	0.87 Disagree	2.61	0.85 Agree
10. I also establish daily or weekly objectives as well as monthly or quarterly objectives for my studies	2.48	1.34 Disagree	2.69	1.31 Agree
Total Grand Mean	**2.32**	**1.04**	**1.70**	**1.05**

Table 2 showed that Male students disagreed with items 1 through 10 with a mean range of 2.17 to 2.48 and a grand mean of 2.32, all of which were under the cutoff point of 2.50, indicating that they do not participate in a lot of self-regulated learning in relation to their academic accomplishment. With a mean range of 2.61 to 3.00 and a total score of 2.70, which was higher than the cutoff point of 2.50, the female students agreed to items 1, 2, 3, 4, 5, 7, 8, 9 and 10, showing that they occasionally engaged in self-regulated learning to enhance their academic performance. Item 6 was rated unfavourably with a mean range of 2.43.

Hypothesis 1

Students in Delta North Senatorial District who engage in self-regulated learning do not vary significantly from those who do not in terms of their academic attainment.

Table 3: Independent t-test of Students in Delta North Senatorial District who engage in self-regulated learning and those who do not in terms of their academic attainment.

Variable	N	Mean	SD	Df	t	Sig
Participants	205	23.48	8.38			
				448	-4.239	0.000
non-participants	245	26.79	8.15			

Table 3 shows a t-value of -4,239 and a p-value of 0.000. The p-value of 0.000 was less than the alpha threshold when the null hypothesis was tested at an alpha level of 0.05. Therefore, the null hypothesis was disproved. This demonstrated that students in the Delta North Senatorial District who participated in self-regulated learning outperformed those who did not.

Hypothesis 2

There is no significant difference in academic achievement and self-regulated learning of male and female students in the Delta North Senatorial District.

Table 4: Independent t-test examination of academic performance and self-regulated learning of male and female students.

Variable	N	Mean	SD	Df	t	Sig
Male	199	23.18	8.32			
				448	-4.846	0.000
Female	251	26.95	8.12			

The p-value in table 4 is 0.000, and the t-value is -4,846. The p-value of 0.000 was less than the alpha threshold when the null hypothesis was tested at an alpha level of 0.05. As a result, the null hypothesis which states that " there is no significant difference in academic achievement and self-regulated learning of male and female students in the Delta North Senatorial District." was refuted.

Discussion of Results

Secondary school students in the Delta North Senatorial District agreed that they sometimes self-regulate their learning to improve their academic performance. They do this by creating standards for their test-taking in class, looking for a quiet place to study, asking an expert for help with specific subjects, clarifying their questions during instruction in class, and setting both short- and long-term goals.

According to the results of hypothesis 1, there were substantial differences between students who participated in self-regulated learning and those who did not in regards to their academic achievement in the Delta North Senatorial District. The result backs up the observations made by Lim, Jalil, Marof, and Saad (2020), who noted that self-regulated kids set their own learning objectives and make sure to achieve them while being supervised by teachers, parents, guardians, and friends who have more education. The results were consistent with research by Asim & Farooq (2021), who found that students who self-regulate are motivated and active in their learning process when it comes to short- and long-term goals in their academic progress, with their performance being monitored by enforcing self-imposed contingencies. The results corroborated those of (Zimmerman, 2000) Schunk and Zimmermerg (2008), who claimed that self-regulated students create study goals, evaluate their performance, persevere through challenges, and recognise the behaviours that interfere with their learning.

According to research question 2's table 2, female secondary school students in the Delta North Senatorial District engaged in self-regulated learning more than their male counterparts did in order to improve their academic performance. A significant difference between male and female students' involvement in self-regulated learning and their academic achievement in the Delta North Senatorial District was found, according to the results of hypothesis 2. This finding complements the research of Ozsoy-Gunes, Gunes, and Kirbaslar (2014), who discovered that female students scored much higher on the self-regulated scale on planning, establishing goals, and avoiding self-direction than did male students. The results were consistent with Pajares' (2002) study, which found that female students engaged in self-regulated learning at school set more goals and planning techniques, took more notes, and monitored themselves more frequently than male students. The results also support Bidjerano's (2005) research, which demonstrated that female students performed better than male students when adopting self-regulated strategies such information organisation, metacognition, time management skills, elaboration, and effort.

Conclusion and Recommendation

To engage in self-regulated learning, students must adhere to strategies for self-monitoring, goal setting, information organisation, time management, planning, and structuring of their study environment. However, it is advised that teachers should support students in creating their own self-beliefs, goals, and learning expectations. Additionally, school administration and teachers should promote reflective discourse by providing students with feedback since they are ultimately in charge of their own education.

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Corresponding author Email: ***chiekemenwefa@gmail.com or cenwefa@delsu.edu.ng***