THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Influence of Self-instructional Strategies on the Academic Achievement of Students in Public Secondary Schools in Ohaji, Imo State, Nigeria

Oparaji, I. C.,
Lecturer, Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria
Umeozor, U. J.
Lecturer, Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria
Obiakor M. I.
Lecturer, Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria
Igbokwe, I. C.
Lecturer, Department of Educational Management and Policy,
Nnamdi Azikiwe University, Awka, Nigeria

Abstract:
In this study, the researcher examined the influence of self-instructional strategy on the academic achievement of students of public secondary schools in Ohaji, Imo State. Four research questions and four hypotheses guided the study. The instrument that was used for data collection was a 16-item questionnaire titled; 'Influence of Self-instructional Strategy on the Academic Achievement of Students in Public Secondary Schools in Ohaji Questionnaire (ISSAASPSSOQ)'. The instrument was validated by three experts; two from the Department of Educational Management and Policy and one from the Department of Educational Foundations, all in the Faculty of Education, Nnamdi Azikiwe University, Awka. The instrument consisted of four sections with an average value of 0.88. The reliability of the instrument was obtained through a pilot study and analysis using Cronbach alpha. Pearson Product Moment Correlation Coefficient was used to answer the research questions and test the hypotheses. The coefficients of correlation were classified into the forms of relationship they exhibit. In testing the hypotheses where p-value is less than 0.05, the null hypothesis is rejected, if however, it is otherwise, the null hypothesis is accepted. It was therefore recommended among others that teachers should prepare their students with strategies for self-instructions.

Keywords: Influence, self-instruction, strategy, public secondary schools

1. Introduction

The idea of self-instruction connotes the concept of a student taking responsibility for his learning process and its outcome. Tomas (2011) defines it as a situation where students initiate their learning process. The strategy according to him involves setting goals by a student, determining actions to achieve set goals and mobilizing resources to execute the actions. The strategy has to do with the method adopted to achieve learning set goals. Hutchinson (2013) states that the strategy describes how the end goals would to achieved. Some of these strategies he argued include creativeness, problem solving, self-reinforcement, self-questioning, memorization, self-monitoring and self-instruction.

This means that self-instructional strategies require a student to possess the skills or strategies to manage his own learning processes. Alotabi, Tohmaz and Jabak (2017) stated that self-instruction is concerned with responsibility in learning. It describes a situation where students assume varying degrees of accountabilities for their learning. For self-instructional learning to occur, two conditions must be satisfied. Firstly, the student or learner must take care of his learning by making decisions on all aspects of the learning process which include determining the objective, defining the progressions, selecting methods used and evaluating what has been learnt. To do this, the student is trained in certain learning strategies like planning and organising, practising time management, developing the practice of memorization, auditing his learning process and evaluating the outcome and comparing it with set objectives and efforts made (Edumark, 2018).

Ubuton and Ugante (2017) noted that self-instructional strategy like self-regulation, self – monitoring, self-reinforcement and self-evaluation helps a student to gain access to cognitive processes that facilitate learning and guide learners as they apply the process within and across the study enterprise and regulate their application and overall performance. Chatzistangtion and Dermitzaki (2013) suggested that a student learns better when he is actively involved

with construction of knowledge. Learners according to them achieve this, by integrating innate ideas with their expectations.

Edumark (2018) stated that the process of self-instruction starts with the initiative of a student to learn or study on his own. The next step according to them is for the student to set objectives which explain the goals he intends to achieve at the learning process. The next stage is for a student to identify the topics to study and select the materials (books) to use in the study (Ubelon and Ogwunte, 2017).

The next stage is to break the learning process into stages. The essence of this strategy is to take the subtopics one at a time. It helps to ensure memorization which is a step to account for what has been learnt (Rowe, Mazzoti and Ingramg, 2013). Memorization is the process of internalization of what is learnt. It involves taking to heart the contents of study materials, discussing them and analysing them in order to draw inferences from them. Sahranavard, Miri and Sarehiriya (2018) stated that this process facilitates the transmission and reproduction of what is learnt by a student even during examination.

Time management is another self-instruction strategy. This can be defined as the regimentation of the contents of what is to be learnt into periods of time. Time is simply the space between periods. Edumark (2018) writes that time management accounts for why some people accomplish more tasks than others within a specific period. It brings discipline, organization and order into the life and activities of a student. In addition to this, it makes a child focused and strategic in his learning process. It also makes personal appraisal or evaluation easy, so much that a student can identify his mistakes and makes effort to effect necessary corrections (Dotson, 2015).

The need for a student to evaluate what he has read cannot be overemphasized. In fact, this is a strategy that gives vent to imitativeness and efforts made by a student to guarantee a successful outcome of self-instructional strategy. Montague, Enders and Dietz (2011) opined that evaluation like self-assessment is the opportunity a learner has to compare performance with objectives or goals set at the beginning of the learning process. To them, it is a step to ascertain whether efforts made and time spent during learning yielded the expected result. It is equally the time to identify errors and isolate them for corrections.

Beyond the above self-instructional models, it is important to note that in some cases, the teacher may initiate the learning process during prompting but one major ingredient of this concept is that the student controls or takes care of the process (Abbey and Okorogba, 2017). As indicated earlier, self-instructional strategy helps to enhance or improve the reading habit of students. It makes learning interesting and increases the cognitivism of a students.

Alotabi, Tochmaz and Jabok (2017) concluded that self-instructional strategy connotes self-assigned task or work by a student. In other words, it is the student that gave himself the task and, in most cases, initiated the learning process. This means that self-instructional strategy is studentcentered. It makes a student to engage in investigative study and teaches him the process of analysing and synthesising what he has learnt or studied (Ajayi and Muriama, 2011).

1.1. Statement of the Problem

Self-instructional strategy is concerned with students initiating their learning processes and taking responsibility for their actions and inactions within the process and accounting for the outcomes of their learning activities. If well carried out, it increases the study habit of students and enhances their capability to comprehend and reproduce what they have learnt. In other words, it makes for increased academic achievement of students.

However, the academic achievement of students in the study area needs much to be desired (Uwadie, 2010). Additionally, there seem to be the dearth of empirical research conducted in the state on this subject. It is against this background that this study investigated the influence of self-instructional strategy on the academic achievement of students in public secondary schools in Ohaji, Imo State, Nigeria.

1.2. Purpose of the Study

The purpose of the study was to ascertain the influence of self-instructional strategy on students' academic achievement in public secondary schools in Ohaji, Imo State, Nigeria. Specifically, the study investigated the influence of;
1. Self-instructional strategy on students' planning and organization of their learning process.
2. Self-instructional strategy on students' time management.
3. Self-instructional strategy on students' memorization of concepts taught.
4. Self-instructional strategy on students' evaluation of learning outcome.

1.3. Research Questions

The following research questions guided this study;
- What is the influence of self-instructional strategy on students' planning and organization of their learning process?
- What is the influence of self-instructional strategy on students' time management?
- What is the influence of self-instructional strategy on students' memorization of concepts taught?
- What is the influence of self-instructional strategy on students' evaluation of their learning outcome?

1.4. Hypotheses

The following hypotheses were tested at 0.05 level of significance;
- There is no significant relationship between self-instructional strategy and students' planning and organization of their learning process.

- There is no significant relationship between self-instructional strategy and students' time management.
- There is no significant relationship between self-instructional strategy and students' memorization of concepts taught.
- There is no significant relationship between students' evaluation of their learning outcome.

2. Method
        The study investigated self-instructional strategy as determinant of students' academic achievement in public secondary schools in Ohaji, Imo State. The study was guided by four research questions and four hypotheses. The population of the study consisted of 650 Senior Secondary School Two (SS2) students in the study area. The proportionate random sampling technique was adopted to choose 450 students as the sample size of the study. The instrument that was used to collect data from the respondents was a 16-item questionnaire titled; 'Influence of Self-instructional Strategy on Academic Achievement of Students in Public Secondary Schools in Ohaji Questionnaire ISISAASPSSOQ'. The instrument was validated by three experts; two from the Department of Educational Management and Policy and one from the Department of Educational Foundations, all in the Faculty of Education, Nnamdi Azikiwe University, Awka. The instrument was divided into four sections. Section A dealt with students' planning of their study. Section B was concerned with students' time management. Section C stressed on students' memorization of concepts taught while section D examined students on self-evaluation of their learning process.
        The reliability of ISISSAAPSSOQ was obtained through a pilot testing and testing using Cronbach alpha which yielded 0.84, 0.82, 0.86 and 0.84 with an average of 0.88 which was considered high enough to be reliable. For the purpose of data analysis, each of the instrument was scored. The four-rating scale was used in rating the responses of the respondent. Each item was weighted as; Strongly Agree (SA) = 4points, Agree (A) = 3points, Disagree (D) = 2points and Strongly Disagree (SD) = 1point. Mean and standard deviation was used to answer researcher questions and determine the homogeneity of the respondents' responses. Pearson Product Moment Correlation Coefficient was used to test the null hypotheses at 0.05 level of significance by computed correlation index for appropriate decision. In testing the null hypotheses, if p –value is less than 0.05 (< -0.05), the null hypotheses is rejected, when it is otherwise, the null hypothesis is accepted.

3. Results

3.1. Research Question 1
        What is the influence of self-instructional strategy on students' planning and organization of their learning process?

S/N	Questionnaire Items	$\overline{X}$	SD	Remarks
1	Self – instructional strategy helps students to plan their study	2.56	0.62	Agree
2	Planning means setting the stages of the learning process. It makes students to organize their study.	3.62	0.87	Strongly Agree
3	Organization involves arranging the learning process in their order of relevance.	2.90	0.93	Agree
4		3.00	0.54	Agree
	Grand Mean	3.02		Agree

*Table 1: Respondents' Mean Ratings on Influence of Self-Instructional Strategy on
Students' Planning and Organization of Learning Process
N = 441*

        Data in table 1 shows that the grand mean score is 3.02 indicating that students agree that self-instructional strategy influence their planning and organization of their learning process. Item by item analysis revealed that out of 4 items listed, respondents rate item 2 strongly agrees with mean score of 3.62 while the remaining three items (items 1, 3 and 4) are rated agree with mean scores ranged between 2.56 and 3.00. The standard deviation scores range from 0.54 to 0.93. This shows that respondents are not wide apart in their mean ratings.

3.2. Research Question 2
        What is the influence of self-instructional strategy on students' time management?

S/N	Questionnaire Items	$\overline{X}$	SD	Remarks
5	Self – instructional strategy helps students to set the time for their study.	2.59	0.71	Agree
6	It enables students to know when the study and when to play.			
	It makes them to break their learning process into time.	3.00	0.69	Agree
7	It helps students to manage their study time well.	3.20	0.51	Agree
8		3.12	0.78	Agree
	Grand Mean	2.98		Agree

Table 2: Respondents' Mean Ratings on Influence of Self-Instructional
Strategy on Students' Time Management
N = 441

Data in table 2shows that all the 4 items listed on influence of self-instructional strategy on students' time management are rated agree with mean scores ranged between 2.59 and 3.12. This implies that students agree that self-instructional strategy influence their time management. The standard deviation ranges between 0.51 and 0.78 indicating that the respondents are not wide apart in their mean responses.

3.3. Research Question 3
What is the influence of self-instructional strategy on students' memorization of concepts taught?

S/N	Questionnaire Items	$\overline{X}$	SD	Remarks
9	Self-instructional strategy increases students' assimilation rate.			
	It makes students to internalize what they have learnt.	2.86	0.71	Agree
10	It helps students to recall what they have learnt.	2.82	0.66	Agree
	Self – instructional strategy makes students to memorize what	2.88	0.81	Agree
11	they have learnt			
12		3.20	0.72	Agree
	Grand Mean	2.94		Agree

Table 3: Respondents' Mean Ratings on Influence of Self–Instructional Strategy on
Students' Memorization of Concepts Taught
N = 441

Data in table 3 shows that all the 4 items listed on influence of self-instructional strategy on students' memorization of concepts taught are rated agree with mean scores ranged between 2.82 and 3.20. This implies that students agree that self-instructional strategy influence their evaluation of concepts taught. The standard deviation ranges between 0.66 and 0.81 indicating that the respondents are not wide apart in their mean responses.

3.4. Research Question 4
What is the influence of self-instructional strategy on students' evaluation of their learning outcome?

S/N	Questionnaire Items	$\overline{X}$	SD	Remarks
13	Self – instructional strategy helps students to account for the energy spent in their study.	3.09	0.63	Agree
14	It enables them to account for the time students spent on their study.	3.40	0.76	Agree
15	It enables students to assess their learning process.	2.88	0.48	Agree
16	Self-instruction makes students to compare outcome with target.	3.62	0.89	Strongly Agree
	Grand Mean	3.25		Agree

Table 4: Respondents' Mean Ratings on the Influence of Self – Instructional Strategy on
Students' Evaluation of Learning Process
N = 441

Data in table 4 shows that students strongly agree that self-instructional strategy makes them to compare learning outcome with target with mean score of 3.62 while they agree on the remaining three items (items 13, 14 and 15) with mean scores ranged between 2.88 and 3.40. The grand mean score of 3.25 shows on the whole, students agree that self-instructional strategy influence their evaluation of learning process. The standard deviation ranges between 0.48 and 0.89 indicating that the respondents are not wide apart in their mean responses.

3.4.1. Hypothesis 1
There is no significant relationship between self-instructional strategy and students' planning and organization of their learning process.

		Planning and Organization of Learning Process
Self-instructional strategy	Pearson Correlation(r)	.768
	Sig. (2-tailed)	.013
	N	441

Table 5: Correlation Coefficient of the Relationship between Self-Instructional Strategy and Students' Planning and Organization of Their Learning Process

The correlational analysis on self-instructional strategy and students' planning and organization of their learning process as presented on Table 5, ($r_{(441)}$ = .768; p = .013), shows a significant relationship between self-instructional strategy and students' planning and organization of their learning process, since p-value of .013 is lesser than 0.05. Therefore, the null hypothesis is rejected.

3.4.2. Hypothesis 2

There is no significant relationship between self-instructional strategy and students' time management.

		Students' Time Management
Self-instructional strategy	Pearson Correlation(r)	.831
	Sig. (2-tailed)	.002
	N	441

Table 6: Correlation Coefficient of the Relationship between Self-Instructional Strategy and Students' Time Management

The correlational analysis on self-instructional strategy and students' time management as presented on Table 6, ($r_{(441)}$ = .831; p = .002), shows a significant relationship between self-instructional strategy and students' time management, since p-value of .002 is lesser than 0.05. Therefore, the null hypothesis is rejected.

3.4.3. Hypothesis 3

There is no significant relationship between self-instructional strategy and students' memorization of concepts taught.

		Students' Memorization of Concepts Taught
Self-instructional strategy	Pearson Correlation(r)	.616
	Sig. (2-tailed)	.000
	N	441

Table 7: Correlation Coefficient of the Relationship between Self-Instructional Strategy and Students' Memorization of Concepts Taught

The correlational analysis on self-instructional strategy and students' memorization of concepts taught as presented on Table 6, ($r_{(441)}$ = .616; p = .000), shows a significant relationship between self-instructional strategy and students' memorization of concepts taught, since p-value of .000 is lesser than 0.05. Therefore, the null hypothesis is rejected.

3.4.4. Hypothesis 4

There is no significant relationship between students' evaluation of their learning outcome.

		Students' Evaluation of Learning Outcome
Self-instructional strategy	Pearson Correlation(r)	.756
	Sig. (2-tailed)	.001
	N	441

Table 8: Correlation Coefficient of the Relationship between Self-Instructional Strategy and Students' Evaluation of Learning Outcome

The correlational analysis on self-instructional strategy and students' memorization of concepts taught as presented on Table 6, ($r_{(441)}$ = .756; p = .001), shows a significant relationship between self-instructional strategy and students' evaluation of their learning outcome, since p-value of .001 is lesser than 0.05. Therefore, the null hypothesis is rejected.

4. Discussion

The findings of the study as contained in Table I indicated that there is a positive relationship between self-instructional strategies and students' planning and organization of their learning process. One major influence of self –

instructional strategy is the capacity to strategize their learning process and this is what planning and organization of learning represents.

One other finding of the study is contained in Table 2 is that there is a significant relationship between self – instructional strategies and time management. The process of regimentation of learning process within the spaces of time is a vital input of self – instructional strategy on the learning attitude of students. In addition, the fragmentation of learning processes into different times entails that the learner has to account for himself what he did with each expiring learning time or period. This study virtue is exactly what self-instructional strategy is directed to inculcate into students. Another finding of the study as contained in Table 3 showed that there is a positive relationship between self-instructional strategies and memorization. Memorization is the process of internalizing what has been read. Its link with instructional strategy is that it enhances the understanding of students and equips them with the ability to reproduce what they have assimilated and this is actually what the concept of self-instructional strategy is all about.

The findings of the study as seen in Table 4 indicated a high and positive relationship between self-instructional strategies and students' evaluation of their learning process. One major target of self-instructional strategy is that it makes students to take responsibility of their learning process outcome. One of the means of achieving this accountability is self-evaluation of their own learning strategies and processes. Such evaluation process helps students to compare outcome with objectives set at the beginning of the learning outcome.

5. Conclusion

From the findings of the study, it could be seen that self-instructional strategies have a direct bearing relationship with students' academic achievement. It makes students conscious of their tasks or responsibilities as they begin to realise that their academic success or failure could be designed by their levels of commitment to their study.

6. Recommendation

In view of the findings of the study, the following recommendations are therefore presented;
1. Teachers should teach students the idea or concept of self-instructional strategies.
2. Teachers should teach students the processes of self-instructional strategies.
3. The school should provide students with the enabling environment that can help them embark on self-instructional strategy.
4. Parents should also provide students with the facilities for their engagement of self-instructional strategies and monitor them to ensure that targets set are achieved.

7. References

i. Abbey, l.M. and Okorogba, L.I. (2017). Comparative effects of students' academic performance in learning Financial Accounting using instructional video. *Internal Journal of Advanced Academic Research in Arts, Humanities and Education,* 3(12), 24-29.
ii. Ajayi, K.O., and Murianma, K.O. (2011). Parents' education, occupation and real mothers' age as predictors of students' achievement in Mathematics in some selected secondary schools in Ogun State, Nigeria. *Academic Leadership online Journal.,* 9(2) Spring 2011.
iii. Alotabi, K., Tohmaz, R., and Jabok, O. (2017). The relationship between self-regulated learning and academic performance for a sample of community college students at King Saad University. *Educational Journal,* 6(1), 28-29.
iv. Chatzistamation, M. And Dermitzaki, I. (2013). Teaching Mathematics with self – regulation and for self – regulation. Teachers' reports. *Hellanic Journal of Psychology.* 10, 253 – 274.
v. Edumark, (2018). Teaching at Nexus: Meaning, process and challenges. Edumark Publication Ltd.
vi. Ezeahumkwe, J.N. (2010). Effects of elaborative investigation and self-assessment strategies in Mathematics achievement, test anxiety and self-efficacy of low achieving students (Unpublished doctoral dissertation), Dept. Of Education, UNN.
vii. Gretchen, E.D. (2013). Effects of cognitive strategy instruction on the Mathematical problem solving of middle school students with learning disabilities. Retrieved on April 18, 2012 from eid.oholink.edu/sens.pdf.egs/Daniel/20 Gratchen.pdf.
viii. Hutchinson, L.R. (2013). Young children's engagement in self-regulation at school. Retrieved from: http://open.library.ube.ca/Urde/collections/ubctheses/24/items/1.0073717.
ix. Montague, M., Enders, C., and Dietz, S. (2011). Effects of cognitive strategy instruction on Math problem solving of middle students with learning disabilities. Quarterly, November 1.34: 262-272. Retrieved on March 21, 2012 from http://idq.sagepub.comdeontent/34/4/262.full.pdf/html.
x. Rowe, D.A., Mazzotti, V.L., and Jagram, A. (2012). Effects of goal-setting instruction on academic engagement for students at risk. Retrieved from http://journal, sagepuh.com/home/cde.
xi. Tomas (2011). The Hungry mind: intellectual curiosity is the third pillar of academic performance perception on psychological science. 6(6): 574-588. Doi:10.1171745691611421204; PDMD26168378.
xii. Uwadie, I. (2012). Head of the Nigeria National Office of WAEC. *Examiner's Report.* Retrieved July 21, 2011 from http://www.waecnigeria.org/news.htm.