

## **Enhancing Students' Achievement in Economics through Self-Regulated Instructional Strategies in Nigeria**

**Chukwuemeka A. Nwosu**

Department of Education Management, College of Education  
Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria

### **Abstract**

This study examined the impact of a self-regulated instructional learning strategy on students' achievement in Economics at the senior secondary school level. It specifically sought to determine whether the strategy significantly improved students' academic performance compared to the conventional teaching method. Two research questions and two corresponding hypotheses guided the investigation. A non-randomized pre-test–post-test control group experimental design was employed. The sample comprised 66 students drawn from two schools selected through simple random sampling. The experimental group received instruction using the self-regulated learning strategy, while the control group was taught using the traditional method. Data were collected using a researcher-developed Economics Achievement Test, which was validated by experts. The reliability of the instrument was established using the Kuder-Richardson (K-R 20) method, yielding a coefficient of 0.85. Mean and standard deviation were used to answer the research questions, while a two-way Analysis of Covariance (ANCOVA) was applied to test the hypotheses at the 0.05 level of significance. The findings revealed that the self-regulated instructional strategy significantly enhanced students' academic achievement in Economics.

**Keywords:** Self-regulated learning, Instructional strategy, Academic achievement, Economics education, Experimental design

## 1. Introduction

Education is seen as a means of imparting and acquiring knowledge. This is done through teaching and learning within the four walls of a school. The school system is established to facilitate teaching and learning. It empowers the students with necessary knowledge and skills for an effective living in the society. It is expected that classroom learning be transferred into solving problems in real life situation. The present Nigerian educational system seems to be far from achieving the desired educational goals and objectives as there are noticeable evidence of decline in the standard of education and quality of students especially at the secondary school level (Duze, 2011).

According to Ifedili and Ojogwu (2007), they averred that the falling standard of education manifested in the performance of student at various examinations leaving many people to wonder about the future and place of Nigeria education in the 21<sup>st</sup> century. Somany factors have been pointed out as responsible for the poor performance of Nigerian secondary school students especially in economics.. Some of these factors include poor teaching and learning methods, inadequate instructional facilities, students' lack of interest and motivation. Furthermore, Okpala(2003) observed that conventional teaching method is mostly used in Nigerian secondary schools especially in economics that is more of abstractions. Aso,Tamblyn(2003) observed that the conventional teaching strategy fails in teaching learners how to think creatively. Given this scenario, there is need to engage the students in creative thinking as it develops their solving problem skills. This can be achieved by making learners the centre of learning activity in order to take charge of their learning as to become self- Instructed learners.

Se-regulated instructional learning strategy, in the context of this work, is a cognitive and meta-cognitive learning instructional strategy. It involves the use of designed instructional package so that students can learn either with their teachers' intervention or not or with minimum guidance by their teachers' while applying different learning skills or strategies. Self-regulated instructional learning strategy is a student centered learning strategy that focuses on the monitoring of cognitive processes of an individual's problems solving.

However, Economics is a social science that deals with human societies and human behaviour. It is also vital in the understanding of how the world and its systems operates as it builds problem solving skill and develop one's logical way of understanding problems (Serakalala, 2014). Thus,

Economists advice government on how to manage and avoid issues such as inflation, deflation and unemployment in the country. Despite the emphasis and recognition accorded to Economics as one of the key subjects needed by all to make rational decision on how best to manage their scarce resources, research findings revealed that students' academic achievement has continued to be poor in subject both in internal and external examinations (Onipede 2003 & Camilinus 2011).

The cause of failure or under achievement was partly attributed to the use of conventional method of teaching Economics which has been observed to be deficient in addressing the problems of the learner (Serena, 2010). She further said that students' learn Economics effectively when they are taught with other strategy such as problem solving strategy where students are allowed to learn on their own pace, through a set of activities and experimentation to find out answer to problems than the use of conventional method. Additionally, Garry and Stuart (2000) found out that students are more interested and willing to learn Economics concepts and also know when to apply its principles in real life situation when they are taught with that are activity centred such as; self-regulated instructional strategy than conventional teaching methods. This is because it requires students' to independently plan, monitor and assess their learning. Thus, the thrust of this study is on the effects of self-regulated instructional strategy on students' achievement in Economics.

Academic achievement has been defined as the ability to study and remember facts and to be able to communicate your knowledge verbally or on paper (Bell, 2009). He further refers to how students deal with or accomplish different tasks given to them by their teachers. In educational institution, success is measured by academic achievement, or how well a student meets standards set out by the institution itself as career competition grows even fiercer in the working world. Academic achievement refers to a student's success in meeting short or long-term goals in education by completing high school or earning a college degree.

The outcome of education shows the extent to which a student or institution has achieved their educational goals. Hence, the ultimate goal of this work is to determine the possible effects of students' academic achievement in learning Economics based on self -regulatory instructional learning strategy.

### **Statement of the study**

Economics as a social science has been accorded a prime position all over the world. Within the context of social sciences, Economics has been identified as the major category of social science subject and its importance in the formation, growth and development of any nation's economy has been widely reported by many researchers. It is as a result of the recognition given to economics in the formation of human capital and development of nation's natural resources that it was made a core subject among the social science subjects (Adreassen, 2011). The present performance or achievement trend of student's in SSCE and NECO economics examination in the country as indicated by chief examiner's report has not been satisfactory. The cause of this failure was partly attributed to inadequate utilization of appropriate instructional strategies which call for this study in order to ascertain if self-regulatory instructional strategy will help to enhance students' academic achievement in Economics.

### **Purpose of the Study**

The purpose of this study was to investigate the effect of self-regulated instructional learning strategy on the students' achievement in Economics. Specifically, the study was designed to achieve the following objectives:-

- 1) Find out the difference in the post test mean achievement scores of senior secondary school students' taught Economics using self-regulated instructional learning strategy and students' taught Economics using conventional method?
- 2) To ascertain the difference in the post test mean achievements scores of male and female senior secondary school students' taught Economics using self-regulated instructional learning strategy and students' taught Economics using conventional method?

### **Research Questions**

The following research questions were used to guide this study:-

- 3) What is the difference in the post test mean achievement scores of senior secondary school students' taught Economics using self-regulated instructional learning strategy and students' taught Economics using conventional method?
- 4) What is the difference in the post test mean achievements scores of male and female senior secondary school students' taught Economics using self-regulated instructional learning strategy and students' taught Economics using conventional method?

## Hypotheses

The following null hypotheses were tested at 0.5 level of significance.

**HO<sub>1</sub>** There is no significant differences in the post test achievement mean scores of senior secondary school students' taught with self-regulated instructional learning strategy and those taught with the conventional method.

**HO<sub>2</sub>** There is no significant differences in the mean achievement scores of the male and female senior secondary school students taught with self-regulated instructional learning strategy and those taught with the conventional method.

## 2. Research Methodology

Quasi - experimental research design was adopted in this research work. Precisely, non-randomized pre-test-post-test was used. The design involved the use of intact classes via experimental and control group. The sample size for the study was 66 students selected from two schools. A combination of purposive and simple random sampling technique was adopted by the researcher. The purposive sampling technique was used to select the two schools that satisfy the requirement needed for the study and simple random sampling technique was used in the selection of the two schools through balloting system.

Economics Achievement Test (EAT) was developed by the researcher. This instrument consists of 35 multiple questions with 4 options A – D. The EAT was made up of two parts A & B. Part A contains the personal data of the respondents while part B contains the items to which the students responded to, which enables the researcher obtain data to answer the research questions and analyzed the hypotheses formulated for the study. The EAT was face validated by expert in measurement and evaluation and two experts in Economics Education for relevance, clarification and content coverage based on the topic selected for the study it was further subjected to content validation using test – blue print. The use of item analysis was to ensure the adequacy of each items of the instrument in terms of its difficulty discrimination and distracter index. This resulted in the scaling down of the question items to 20 questions. Kuder - Richardson (K-R 20) was used to determine the reliability of the instrument. The K – R 20 was used because the items involved were dichotomously or objectively scored. The K – R 20 formula yielded a reliability coefficient value of 0.85.

Two instructional packages were developed by the researcher. The first package was based on Self – regulated instructional learning strategy, the second was based on the conventional instructional method. The questions were drawn from the selected topics for the study. Thus, at the beginning of the experimental process, the test instrument “EAT” was administered to both subjects in the experimental and control group as pre-test. This was conducted by the regular Economics teachers trained by the researcher based on the experimental guide. The same instrument was administered to the subjects at the end of the experimental period, eight weeks later. The instrument was marked and scored. Thereafter, the scores obtained during the pre-test and post- test were subjected to both descriptive statistics and inferential statistics. The data generated were analyzed using mean and standard deviation to answer the research questions while Analysis of covariance was used for testing the hypotheses at 0.05 level of significance.

### 3. Results

#### Research Question One

What is the difference in the post test mean achievement score of students’ taught Economics using self-regulated instructional learning strategy and those taught Economics using Conventional Method?

Table 1 **Post-test mean achievement scores of students’ taught Economics using self-regulated and conventional method.**

Group	N	( $\bar{x}$ )	SD
Self- regulated instructional learning strategy	33	66.39	14.93
Conventional method	33	42.06	12.29
<b>Mean Gain</b>		<b>24.33</b>	

In the table 1, it shows that the post-test mean achievements scores of students’ taught Economics using self-regulated instructional strategy is 66.39 with standard deviation of 14.93. The high mean achievement scores and high standard deviation scores shows that the students’ taught Economics using self -regulated instructional strategy perform better than the students’ taught Economics with conventional method which is 42.06 with standard deviation of 12.29

which yielded a mean gain of 24.33. This emphasizes that the students’ taught Economics using self-regulated instructional learning strategy performed better than those students’ taught Economics using conventional method.

**Research Question Two**

What is the difference in the post-test mean achievement scores of male and female students’ taught economics using self-regulated instructional strategy?

**Table 2 Mean achievement scores of male and female students’ taught Economics using self-regulated strategy.**

Gender	N	( $\bar{x}$ )	SD
Male	15	74.47	14.80
Female	18	69.67	10.74

The result in table 2 shows that the mean achievement scores of male students’ was 74.47 with standard deviation of 14.80 whereas that of the female counterpart was 69.67 with standard deviation of 10.74. The high mean scores and high standard deviation for male students’ shows that they achieved better when taught economics using the self-regulated instructional learning strategy

**Hypothesis One**

There is no significant difference in the post-test mean scores of students’ taught Economics using self-regulatory and those taught Economics with the conventional method.

**Table 4.4 Analysis of Covariance (ANCOVA) of post-test mean achievement scores of students’ taught Economics using self- regulated and conventional method.**

Source of variance	sum of squares	DF	Mean square	Fcal	Sig.
Corrected model	11.000 <sup>a</sup>	37	.297	1.514	.129
Intercept	120.998	1	120.998	615.990	.000
Xi (methods)	11.000	37	.297	1.514	.129

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Error	5.50	28	.196
Total	165.000	66	
Corrected total	16.500	65	

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This table 3 shows that the F-calculated value is 1.514 and the critical value is 0.129. Since the f-calculated value is greater than the critical value, the null hypothesis stated is rejected. Therefore there is a significant difference in the post-test mean achievement scores of students taught Economics with self-regulated and those taught with conventional method.

### Hypothesis Two

There is no significant difference in the mean achievement scores of male and female students' taught Economics using self-regulated instructional learning strategy.

**Table 4: Analysis of Covariance of the mean achievement scores of male and female students' in the Economics based on self-regulated instructional learning strategy.**

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Source of variance	sum of squares	DF	Mean square	F	Sig.
Corrected model	6.432 <sup>a</sup>	22	.292	1.671	.202
Intercept	59.689	1	59.689	341.079	.000
Gender	6.43	22	.292	1.671	.202
Error	1.750	10	.175		
Total	87.000	33			
Corrected total	8.182	32			

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This table 4 shows that f-calculated value of 1.671 and the critical value of 0.202. Since the f-calculated value is greater than the critical value, the null hypothesis stated is rejected. Therefore, there is a significant difference in the mean achievement scores of male and female students' taught economics using self-regulated instructional learning strategy.

### 4. Discussion of Findings

The mean scores of students' taught Economics using self-regulated instructional learning strategy is high than those taught using conventional method. The findings from the analyzed

research question one shows that there was high post-test mean achievement scores which was significant between the students taught Economics using self-regulated instructional learning strategy than their counterpart taught Economics using the conventional method. This finding was in agreement with the findings of Anyichie and Onyedike (2012) who found out that teaching students' with self-regulated instructional strategy helps them to improve in their academic performance. The reason for this higher achievement mean score of students in Economics is not far fetched since self-regulated instructional learning strategy helps the students to be actively involved in their learning process. Thus, the activities they engaged in during the learning process make them to have active control over their self-concept, self-evaluation and self-process during learning. Corroborating this statement, Adani, Eskay and Onu (2012) asserted that self-regulated instructional strategy had effect on the academic performance of secondary school students in chemistry. The practical implication of this is that, when students are taught with self-regulated instructional learning strategy it boost the mental concentration and encourage self-motivation which gives rise to improved academic performance or achievements.

The mean achievement scores of male students taught Economics using self-regulated instructional learning strategy is higher than their female counterpart. The findings from the analysis of research question two showed that there was a very high mean achievement scores which was significant between male students and their female counterpart taught Economics using self-regulated instructional learning strategy. This means that self-regulated instructional strategy has positive effect on academic achievement of male students in Economics than their female counterpart. This is in conformity with the findings of Orimogunje (2014) who found out that there was a positive effect on academic achievement of male students' taught chemistry with self-regulated instructional strategy than their female counterpart.

The significant difference in the mean achievement scores of male and female students taught Economics using self-regulated instructional strategy. The findings from hypothesis two shows that there was a significant difference in the mean achievement scores of male students' than their female counterparts in Economics. This means that self-regulated is significantly effective in academic achievement of male students in Economics than their female counterpart. The

findings from the analysis are in conformity with the findings of Anyichie and Onyedike (2012) who found out that academic performance or achievement of male students taught self-regulated instructional strategy is significantly higher than their female counterpart in Economics. Corroborating this, Orimogunje (2014) revealed that teaching male students with self-regulated strategy in chemistry significantly enhanced their academic achievement than their female counterparts. Therefore, the practical implication of these findings are, it has been seen that when male students are taught using self-regulated instructional strategy, their academic achievement will be improved more than their female counterparts.

## **5. Conclusion**

Based on the findings of the study, the following conclusions were made. There was a positive effect on academic achievement of senior secondary school students taught economics with self-instructional strategy which was significant between students taught economics with conventional method. Self-regulated learning instructional strategy was significantly effective in enhancing the academic achievement of the students in Economics between the male students and their female counterparts. The strategy favoured the male students than their female counterpart. It was also noted that self-regulated instructional learning strategy was significantly associated with academic achievements of students in Economics. Finally, self-regulated instructional learning strategies become a very good technique for teaching Economics in our secondary schools.

## **Recommendations**

Based on the findings of the study the following recommendations were made:

- 1) As a result of the relevance of the self-regulated instructional learning strategy in enhancing the academic achievement of students in Economics, the researcher recommends self-regulated instructional strategy of teaching should become an integral part of the methodology of teaching Economics at secondary school level.
- 2) The Federal and State Ministry of Education should make appropriate plans to expose Economics teachers to training workshops on self-regulated instructional strategy in

order to update their teaching techniques for improving teaching and learning of difficult concept/topics in Economics.

- 3) Training in self-regulated instructional strategy should be incorporated in teacher's training programme, and it should form the essential part of in – services and pre – service teachers capacity building programmes
- 4) Teacher should make use of self-regulated instructional strategy in teaching Economics to secondary school students in order to promote their self- concept, self-esteem and self-reliance among secondary school students to enhance their academic achievement.
- 5) Self-regulated instructional strategy of teaching should form the essential part of the pedagogy in teacher's Education. And teachers should on a regular basis, attend in services innovation oriented training workshops/seminars to keep abreast of new techniques and skill development.
- 6) There are modern books on self-regulated instructional strategy. These books should be made available to all secondary schools, though most of these books are foreign. However, Nigeria Authors should begin to write books on this recent teaching innovation. Up till now, there is no Nigerian Author that has dealt extensively on spatial learning strategies. All the books treating this area are foreign and such foreign book do not really meet the educational needs of the Nigeria learner.

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