



IMPACT OF INTEGRATED GROUP-BASED MASTERY LEARNING MODEL ON THE ACADEMIC ACHIEVEMENT OF JUNIOR SECONDARY SCHOOL STUDENTS SOCIAL STUDIES IN OSUN STATE.

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Abstract

This research work examined the impact of integrated group-based mastery learning model on the academic achievement of junior secondary school students in social studies in Osun state. (a case study of ila local government area of Osun state. The study was carried out using 100 sample drawn from the junior secondary schools in Ila local government, using multi stage random sampling technique. The instrument used to obtain data was questionnaire arranged on modified likert scale such as, strongly agree, agree, disagree and strongly disagree. Data collected were subjected to statistical analysis using descriptive statistics and inferential statistics of Analysis of Variance (ANOVA) and t-test. Results of the analysis revealed that, integrated group based teaching strategy appears to be most appropriate in the teaching of junior school students. Findings of the study also showed that there is difference in academic performance between students exposed to integrated group based depending on their location. Based on the result of the study, it was recommended that the government and school management should make adequate provisions for integrated group based teaching strategy facilities in schools and encourage both the teachers and students on the needs to make use of these methods regularly.

Keyword: Integrated, Group based mastery learning model, Social Studies, Academic achievement, Junior Secondary School.

Introduction

The recent socio-political and economic changes in the world and within nations have brought about changes in educational goals and greater challenges for Social Studies. The schools are called not only to equip the learner with basic knowledge of Social Studies content but also with higher cognitive skills, such as problem solving and thinking skills that allow for self-development and continuous learning. To meet up with these challenges, there is a movement away from the behaviourist method of direct teaching such as in the lecture method, note copying and dictations, where the learner is given contents to memorize and regurgitate.

Social Studies as a discipline continues to enjoy changes in educational objectives. In the 20th century, History, Economics, Government and

Geography were taught as separate subjects with a listed series of facts to be memorised. With changes in educational outcomes students' learning had to be reconsidered and taught as integrated discipline. Emphasis is now shifted from learning as acquisition of facts to learning as utilization of facts; from learning as memorization (from Geography and History texts), to learning as a process of discovering important relationships and principles inductively; from learning for learning sake to learning as a way of inquiring and thinking according to the processes of the Social Sciences. This can only be achieved through the process of mastery learning strategy (Onibokun, 2018).

Social Studies as a subject is of a fairly recent origin throughout the world. The concept of Social Studies was first developed in USA in 1916 by the

committee on Social Studies of the commission on the reorganization of secondary education of the National Education Association (Jarolimek 2017). Later in 1930s Social Studies was introduced into Europe especially in Great Britain due to unprecedented enthusiasm to reform the conventional curriculum to meet up with the demands of the society. From 1950 to 1956, the subject had spread to many African Countries. The new independent nations of Africa were faced with how to re-order their national policies to enable them perform their expected roles as independent nations within the world community of nations. The development of Social Studies in secondary schools in Nigeria gained momentum from the year 1977 after the introduction of National Policy on Education popularly known as the 6-3-3-4 system. This rapid progress was caused by two major factors. The first was that the Universal Primary Education (UPE) introduced in 1976 made Social Studies the only social science subject to be taught in the primary schools. The second factor was that Social Studies was made a core subject for the junior secondary school. This has brought a lot of awareness to the students and the teachers on the significant roles of Social Studies especially as it affects the implementation of 6-3-3-4 system of education.

In order to implement the National Policy on Education, government at all levels became more interested in the schooling process in terms of educational outcomes, learning activities, instructional resources, instructional strategies and evaluation procedures. In view of this, emphasis has been on the need to:

- ❖ make educational activities centre on the learner for maximum self-development and self-fulfillment.
- ❖ structure the educational system to develop the practice of self-learning (FRN, 2004). The implication of these for classroom teachers is that, they should develop a teaching approach which encourages the learners to participate in the learning processes.

Despite the efforts of Government in restructuring the educational system to develop the practice of self-learning, the dominant approach to instruction in schools has been the expository type especially since the inception of western education in Nigeria in 1843. Other methods of instruction were later introduced into the learning processes. For instance, since 1960, curriculum planners have emphasized the inquiry approach by claiming that carrying out investigations is the most promising method by which students will master inquiry skills and become literate in social studies (Schwab, 2013; Yager & Lutz, 2014). Even at that, it cannot be said that schools have done well in

developing such skills in the learners.

Quite a number of studies have been conducted to investigate the reasons why Junior Secondary Social Studies objectives has not been adequately achieved (Onasanya, 2015; Ogbu, 2013; Iroegbu, 2018; Adegbite, 2019; Adepoju, 2019) and the most reoccurring factor in all is the inadequate teaching method used by Social Studies teachers.

Social Studies as a school subject introduced by the Federal Government was to help students acquire basic social knowledge, positive attitudes, values and social skills needed to make the students functional and responsible citizens and contributing members of the society. It provides knowledge, skills and attitude that enable learners understand their physical and social environment in order to act or behave as responsible citizens. It prepares students to live in a global and culturally diverse world, as well as keep pace with rapid development in electronically and technologically changing world, (Martorella, 2016). It involves person with group and group with group. It is a study of human being in relationship with their environment, how environment affects people and how human being in turn can influences their environment.

The teaching of Social Studies is therefore an activity that involves both the teacher and the learner. The purpose of teaching is to ensure that learning takes place. While learning involves a behavioural change in the learner Social Studies teaching involves the transmission of the relevant body of knowledge, attitudes, manner, dispositions, skills and values that enable the individual to survive in a growing and dynamic society.

According to Adeyemi (2017), teaching of Social Studies is a process of facilitating student learning through a proper management by the teacher of the inter-relationships among the students' interest, the content for learning and the methods and materials he or she intends to use in the teaching and learning of the content materials. It may involve giving instruction to somebody on knowledge, skills and attitudes with the intention that the person will be able to know the information or to do something or act in a particular way that is compatible with the instruction. The person the instruction is given to may be a learner a pupil, a student or a trainee. The means employed by the teacher to pass information to the learner would determine ultimately, if he or she is teaching.

According to Lynn, Douglas and Gerald (2019), Mastery Learning is an instructional process that provides students with multiple opportunities to demonstrate content mastery. Initial instruction is presented at a fast pace to engage all learners. Students who do not demonstrate mastery are given additional instruction specifically designed to correct



their misunderstandings. Re-teaching should involve strategies that are different from the original instructional methods. For example, if the original material was presented in a lecture format with visuals, the re-teaching process might involve hands-on activities and cooperative learning strategies. A retest is later given to these students to allow them to demonstrate mastery.

The teacher must be an effective communicator who thoroughly processes information of social studies content and presents it in an orderly and comprehensive manner. There must be an established feedback mechanism so as to enable correction of lapses in instructional methods which can thus bring about improvement in the teaching and learning of Social Studies. Summarily, to instruct for mastery the following guidelines are to be followed:

- (i) Clearly state the objectives representing the purpose of the subject
- (ii) Divide the curriculum into relatively small learning units, each with modelling, practice, formative evaluation; re-teaching, reinforcement, and summative evaluation included.
- (iii) Each unit is preceded by brief diagnostic tests, formative assessments.
- (iv) The results of formative tests are used to provide supplementary instruction, or corrective activities to help the learner overcome problems.

The objective of Social Studies such as inculcating the right types of knowledge, skills, values and desirable attitudes, in learners for self and national survival as well as socializing the students appear to be far from been achieved. Effective teaching of the subject Social Studies which is to assist in proffering solutions to societal menaces such as pollution, family problem, unemployment, intolerance, mutual distrust, religious and ethnic conflicts, kidnapping incidences, insurgency, drug abuse and many others seems not to have been met. This is probably because the teachers handling the subject seems not to deviate from the use of conventional method of teaching with attendant of societal problems still being experienced such as kidnapping incidences, corruption, unemployment, theft, rape, cultism, truancy armed robbery, drug abuse etc.

It is important to mention that most teachers seem not to be competent to teach the subject with innovative and creative methods of teaching such as integrated group based mastery learning model and thus prefer to use the conventional teaching strategy which may likely not help in achieving the objective of the subject.

Social Studies teachers are apparently familiar with conventional teaching approaches, in particular

the teaching style, which makes students passive despite the availability of student-centred and teaching strategies based on activities which promote efficient teaching and learning. The efficient way of teaching Social Studies seems thus not to be discovered. In order to determine whether improvement are made in students' learning outcomes in the Social Studies, new and creative teaching techniques need to be used. Consequently, learners' individual needs, preferences and interest cannot be met by such strategies utilized in the traditional expository method of teaching. This has continued to attract criticisms and as a result, researchers have continued to stress the need for learner-centred methods, one of which is the Mastery Learning Models. Is this instructional approach not likely to enhance students' achievement in Social Studies?

Purpose of the Study

The study examined the effects of integrated group based teaching strategies on Junior Secondary School students learning outcomes in Social Studies in Osun State. The study specifically:

- i. investigated academic performance of students in Social Studies before and after being exposed to integrated group based strategy and the control group,
- ii. examined the difference in the academic performance of students exposed to integrated group based strategy based on location and gender

Research Question

This research question guided the study:

1. To what extent will the use of integrated group based teaching strategy improve students' performance in Social Studies?

Research Hypotheses

The following null hypotheses were formulated for the study:

1. There is no significant difference in the pre-test and post-test mean score of students taught Social Studies before being exposed to integrated group based strategy and the control group.
2. There is no significant difference between the academic performance of male and female students exposed to integrated group based teaching strategy based on location.

Methodology

This study is a quasi-experimental of a non-equivalent control group design. This design was adopted because it was not possible to have complete randomization of subjects. In-tact classes were used



for the two groups, and the two existing groups were pre-tested, administered treatment and post-tested. The non-equivalent control group design involved a pre-test and post-test. The design is described as follows:

Experimental group 01 X1 02
Control group 03 04

01 and 03 were pre-test for both groups while 02 and 04 were post-test for both groups. X1 was treatment for experimental group that is the application of mastery learning strategy while X2 was the conventional learning group. The population of this study comprised all Junior Secondary School (JSS II) students of Government Secondary Schools in Ila Local Government of Osun State. The sample of this study was 100 junior secondary school students selected from two mixed secondary schools. In-tact classes were used for the study. This was done by randomly selecting two mixed schools and from two of the schools selected, a class each was randomly selected and all the subjects in the class were used. JSS II students were used for the study because they are not new in the school environment unlike those in JSS I and were not being prepared for external examinations like those in JSS III. Two research instruments were used for the study. This was Social Studies Achievement Tests (SSAT). A few days to the commencement of the treatment, respondents in both the experimental and the control groups were administered Social Studies questions made up of forty (40) items raised by the researcher. This was used by the researcher to determine the students' entry behavior as well as provide basis for ability grouping. The experimental group was taught using the mastery learning model while the control group was taught using the expository instructional model.

At the end of the teaching that lasted for eight weeks, the same set of parallel test made up of 40 items were administered to the students to determine the effectiveness of the mastery learning model. In order to ascertain the face, content and construct validity of the instruments, each of the SSAT and IGBS was given to experts in Social Studies as well as Tests and Measurement for proper scrutiny. It is upon their corrections that the instruments were adopted for the study. The reliability of the Social Studies Achievement test was determined using Kuder-Richardson 20 procedures for establishing the internal consistency reliability. The instrument was administered to 30 subjects who were not part of the study.

The data collected were analyzed using the Kuder-Richardson 20 and coefficient obtained for SSAT was 0.82 while 0.73 was obtained for IGBS. In order to compare the effectiveness of integrated group based mastery learning model, and the

traditional expository method, the researcher personally carried out the teaching in each school. The resident teachers were requested to help to organize the students in their classes. At the end of eight weeks, a 40-item Social Studies Achievement test was administered to the students. The statistical tool used for data analysis and to test the hypotheses was t-test, and Analysis of Variance (ANOVA). All the hypotheses were tested at 0.05 level of significance.

Results

Question 1: To what extent will the use of integrated group based teaching strategy improve students' performance in Social Studies in Osun State?

To answer this question, the mean scores on students' performance in Social Studies before and after being exposed to integrated group based and conventional teaching strategies were computed and compared.

Table 1: Influence of integrated group based teaching strategy and the control groups on students' performance in Social Studies.

Method	N	Pre-Test		Post-Test		Mean Diff
		Mean	Std. Deviation	Mean	Std. Deviation	
Conventional	50	13.61	4.099	14.40	4.499	0.79
Integrated group based	50	15.88	6.332	16.04	5.779	0.59
Total	100	15.02	5.277	15.53	5.337	0.51

Table 1 indicated that the average student scores 15.88 and 13.61 respectively when they were exposed to integrated group based and traditional techniques before treatment. With a cumulative average of 15.02, the groups seem to be homogeneous. With a total of 15.53 for treatment, the highest average score was students taught via the integrated group based technique (mean = 16.04) while students in the traditional group had the lowest average score of 14.40. This means, integrated group based is the most effective way to improve the performance of students in Social Studies, followed by the conventional method.

Testing of Hypotheses

Hypothesis 1: There is no significant difference in the academic performance of students taught Social Studies before and after being exposed to integrated group based teaching strategy and the control group.

To test the hypothesis, scores corresponding to the pre-test and post-test mean scores of Social Studies students in the experimental and control groups were calculated and then subjected to statistical analysis using Analysis of Variance at a significance level of 0.05.



Table 2: ANOVA of performance of Students exposed to integrated group based teaching strategy and the Control Group in Social Studies before treatment

	Sum of Squares	Df	Mean Square	F _{cal}	Sig.
Between Groups	177.420	2	88.710		
Within Groups	9049.657	296	28.105	1.156	.074
Total	9227.077	298			

$p > 0.05$ (Not Significant)

The result in Table 2 revealed that ($F_{2, 296} = 1.156$, $p > 0.05$). The hypothesis is not rejected. This implies that, there is no significant difference in the academic performance of students taught Social Studies before being exposed to integrated group based teaching strategy and control group. This shows that the three groups were homogeneous at the commencement of the experiment.

Table 3: ANOVA of performance of Students exposed to integrated group based teaching strategy and Control Group in Social Studies after treatment.

	Sum of Squares	Df	Mean Square	F _{cal}	Sig.
Between Groups	319.632	2	159.816		
Within Groups	7979.980	296	26.959	5.928*	0.003
Total	8299.612	298			

$P < 0.05$ (Significant)

The result in Table 3 reveals that ($F_{2, 296} = 5.928$, $p < 0.05$). The hypothesis is rejected. This implies that, there is significant difference in the post-test mean score of students taught Social Studies when exposed to integrated group based teaching strategy and the control group.

Hypothesis 2: There is no significant difference between the academic performance of male and female students exposed to integrated group based teaching strategy based on location.

In order to test this hypothesis, scores relating to the performance of male and female students in Social Studies when exposed to integrated group based teaching strategy were computed and subjected to statistical analysis involving t-test statistics at 0.05 level of significance.

Table 4: t-test of the performance of Students exposed to integrated group based teaching strategy by gender.

Gender	N	Mean	Std. Deviation	df	t _{cal}	Sig
Male	50	15.70	4.373			
Female	50	15.44	4.849	95	0.279	0.293

$p > 0.05$ (Not Significant)

The result in Table 4 shows that $t_{95} = 0.279$;

$p > 0.05$). This means that there is no significant difference between the performance of male and female students when taught Social Studies using integrated group based teaching strategy. Thus, the hypothesis is not rejected.

In order to test this hypothesis, scores relating to the performance of students in Social Studies when exposed to integrated group based teaching strategy in rural and urban area were computed and subjected to statistical analysis involving t-test statistics at 0.05 level of significance.

Table 5: t-test of the performance of Students exposed to integrated group based teaching strategy by Location.

Location	N	Mean	Std. Deviation	df	t _{cal}	Sig
Urban	50	17.31	4.288			
Rural	50	13.79	4.257		4.050*	0.000

$P < 0.05$ (Significant)

The result in Table 5 shows that $t_{95} = 4.050$; $p < 0.05$). This means that there is significant difference in the academic performance of students exposed to integrated group based teaching strategy based on location. Thus, the hypothesis is rejected.

Discussion of Findings

The findings from this study showed that the use of integrated group based method appears to be most effective teaching strategy, followed by the conventional method respectively in enhancing the performance of students in Social Studies. This finding is in line with the submissions of Heeger (2010) whose report shows that secondary school students who generally participate in group based learning achieved far better compared to secondary school students who underwent traditional methods. In many developed economies, several academic institutions make use of extremely interactive integrated group based strategy that directly enhances students' performance. Similarly, Fayomi, Ayo, Ajayi and Okorie, (2015) in their research work found that integrated teaching motivated studies and its self-development effect are significant predictor of academic performance of secondary school students.

The finding also corroborated that of Ajitoni and Salako (2013) and Ajaja (2010). The two studies found that students who were taught by way of integrated group based teaching technique outperformed their counterparts who were taught in control group. Additionally, this study's results indicate that there is no statistically significant difference in academic performance between male and female students exposed to integrated group based strategy and control group. This conclusion is



consistent with Dania's (2014) findings that students' performance is not influenced by their gender in terms of the interplay between gender and treatment on academic success. This result also corroborates Fakeye's (2011) and Adeyemi and Adeyemi's (2013) submissions, which indicated that the academic performance gap between male and female students in English Language was not substantial.

The findings of the study showed that there is difference in academic performance between students exposed to integrated group based depending on their location. This is consistent with Yara's (2009) results that urban students do better in Mathematics and other Social Science courses than rural students. Urban students outperformed rural students. This finding corroborates with those of Amoo (2013), Onuekwusi and Ogomaka (2013), and Igboegwu and Okonkwo (2010), who found that urban students performed better than rural students as a result of teachers reluctance to teach in rural schools and students spending excessive time on farm work at the expense of study time. This means that on big market days, the majority of students would rather go to the market to sell their goods or those of their parents than attend school. Additionally, in contrast to rural schools, urban schools are continuously monitored by ministry personnel. This means that students from rural schools, even if they possess the same potential as students from urban schools, are constrained by certain circumstances that prohibit them from performing at their academic best.

Conclusion

Based on the findings of this study, it is concluded that the integrated group based teaching strategy and control group were homogenous at the commencement of the experiment. The use of integrated group based methods enhanced better performance of Junior Secondary School students in Social Studies than the control group. Integrated group based method was most effective for enhancing better performance of students in Social Studies, followed by the control group.

Recommendations

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

1. The government and school management should make adequate provisions for integrated group based teaching strategy facilities in schools and encourage both the teachers and students on the needs to make use of these methods regularly.
2. The educational administrators and inspectors both at state, local and federal level should endeavor to monitor strictly teachers' activities

while teaching using the recommended teaching strategies which are activity based and child-centred.

3. Government and all stakeholders should on regular basis organize seminars, workshop, symposium and conferences as an in-service training for the teachers on the trends in strategies used in teaching Social Studies, this will help to update and upgrade teachers' knowledge on the new, innovative and constructive teaching strategies like integrated group based teaching strategy.

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