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**EFFECTS OF GALLERY WALK AND CONCEPT MAPPING  
ON SECONDARY SCHOOL STUDENTS' CIVIC  
EDUCATION PERFORMANCE IN  
KWARA STATE, NIGERIA**

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**Abstract**

*Gallery walk and concept mapping strategies are instructional strategies for visualizing, processing and organizing ideas to improve teaching and learning of Civic Education in secondary schools. This study examined the effects of gallery walk and concept mapping on secondary school students' Civic Education performance in Kwara State, Nigeria. The study adopted a quasi-experimental 3x2x3 pre-test, post-test factorial design. All the SSS II students in Kwara State constituted the target population. A total of 117 students participated in the study. Intact classes of 87 and 30 students were randomly sampled for the experimental and control groups respectively. One research question was raised and two hypotheses were*

*formulated to guide the study were answered and tested respectively at 0.05 level of significance. Civic Education Performance Test (CEPT) was used to collect data. 0.78 reliability value was obtained for the instrument using Pearson's Product Moment Correlation while Analysis of Co-variance (ANCOVA) statistics was used to test the four research hypotheses at 0.05 level of significance. The findings revealed that general performance of senior secondary students in Civic Education in Kwara State is average (56.4%); There was a significant difference in the performance of students taught using gallery walk, concept mapping and those taught using conventional method 160.546;  $p < 0.05$ ; There was no significant interaction effect of gender in the performance of senior secondary school students taught Civic Education using gallery walk and concept mapping; There was no significant interactive effect of age and gender using gallery walk and concept mapping on the academic performance of senior secondary school students; This implies that teachers should use instructional strategies that can improve the academic performance, prospects of students through the use of student-centered strategies. The study recommended among others that gallery walk and concept mapping should be encouraged among Civic Education teachers in the delivery of their lessons.*

**Keywords:** Gallery walk, Concept mapping strategies, Civic Education, Performance.

## **Introduction**

Civic Education provides a system of acquisition of certain core values critical to the acquisition of the right kind of attitude, knowledge and skill by citizens that will enhance their capacity to participate in democratic process. The goal of Civic Education is also used to acquire the right types of values, attitudes and the training of the mind in the understanding of the world around us. It is also used in the acquisition of appropriate skills and the development of mental, physical and social ability (Federal Government of Nigeria, FGN,

2013). Therefore, the teaching of Civic Education is very important for the achievement of the national educational goals and objectives. Furthermore, the teaching of the subject (Civic Education) cannot be overemphasized since it has the potential to influence intellectual development, social development and personal growth of the child in the form of self-reliance, good integrity, contentment, discipline and courage of the child.

Instructional strategies that would help students become independent and strategic learners is required and is the essence of this work. Instructional strategies are decisions about organizing learning materials and ideals to produce learning. Strategy determines the objectives of classroom procedure and the means to achieve the objective. It is also a strategy teacher uses to impact knowledge to learners for better understanding of the concept taught. A well-planned strategy will make learning meaningful. A teacher who has educational principle and mastery of some teaching strategies will find it easier to provide the technique necessary for any situation that may arise. There are various types of instructional strategies teachers use to impact knowledge to the students; some of them include the following: integrated group-based mastery learning strategy, guided-discovery technique, discussion method, gallery walk and concept-mapping.

Similarly, guided-discovery technique is another teaching technique that encourages students to take more active roles in their learning process by answering a series of questions or solving problems designed to introduce a general concept (Mayer, 2014). In this teaching approach, the teacher guides the students' through the process of posing a series of questions whose responses would lead to the understanding of what is explicitly stated. This teaching technique is believed to increase retention of materials students organizes the new information and integrates it with information that has already been stored (Gallestein, 2004).

Jekayinfa (2005) pointed that no matter what is done in education unless the teacher is effective in the utilization of appropriate teaching method, the goal of teaching will not be achieved. The teacher is however saddled with the responsibility of

choosing the most appropriate strategy of teaching. They are all learner- centre meaning that they imposed more responsibility on students to learn than the traditional talk and chalk does. Edel-Malizia (2015) defined gallery walk as a discussion strategy that gets students out of their chairs and into a mode of active engagement. According to Hogan and Cernusca (2011), gallery walk is a strategy that has the potential to effectively replace the conventional lecture method as an efficient alternative assessment tool to measure students' academic progress, especially at the end of series of lectures given in a particular term.

As an active teaching and learning strategy, the use of gallery walk in classroom activities requires that students are taken out of their respective seats to move round the classroom where different artefacts and flipcharts relating to the content being taught are posted in different charts on the wall of the classroom. To this end, Edel-Malizia (2015) opined that the artefacts to be posted in a gallery walk ranges from open-ended questions about the content being taught, photographs or graphic designs related to the topic or demonstrations of a finished project.

Similarly, concept-mapping is variable of interest that has great influence on students' academic performance. Thus, there exist several theoretical and empirical evidences on how the use of concept-mapping instructional strategy as one of the various techniques for visualizing ideas, processing and organizing, to improve classroom practices (Reddy & Subbaiah, 2014). Concept-mapping has some epistemological and psychological foundations. From the epistemological point of view, Bakouli and Jimoyiannis (2016) argued that knowledge creation is closely related to high level of meaningful learning realized by people who have demonstrated a well-organized knowledge structure in a particular area of knowledge. From the psychological strand, individuals or children learn from regularity of events or concepts or objects around them.

From previous research findings, it has been deduced that the use of conventional teaching methods and strategies are no longer producing the desired effect of teaching and learning. As such, it becomes imperative to explore teaching methods and strategies that

will make the teaching and learning of Civic Education in schools more efficient, effective and functional so as to meet the needs and challenges of the current dispensation.

Also, the effects of Concept Mapping instructional strategy on students' performance have been established in many studies but not together with Gallery Walk instructional strategy and in Civic Education nor in Kwara State in particular. In order to fill this perceived research gaps, this present study intends to find the effects of Gallery Walk and Concept Mapping instructional strategies on secondary school students' performance in Civic Education in Kwara State, Nigeria. The general purpose of this study is to find out the effect of gallery walk and concept-mapping on senior secondary students' performance in civic education in Kwara State, Nigeria. Specifically, the study aims to examine:

- i. the general performance of students in Civic Education in Kwara State.
- ii. the difference in the performance of senior secondary school students taught Civic Education using gallery walk, concept-mapping and those taught with conventional teaching method.
- iii. the interaction effect of gallery walk, concept-mapping, based on gender on students' performance in Civic Education.

### **Research Questions**

Based on the purpose of this study, the following research questions were raised to guide the study.

- i. What is the general performance of senior secondary students in Civic Education in Kwara State?

### **Hypotheses**

The following research hypotheses are formulated to guide the study:

H<sub>0</sub>1: There would be no significant effects of gallery walk and concept-mapping on the academic performance of Senior Secondary School Students Civic Education.

$H_0$ 2: There will be no significant interaction effect of gender, age, gallery walk and Concept-Mapping on the academic performance of Senior Secondary Students.

### Methods

This study employed a 3x2x3 quasi-experimental, non-randomized, non-equivalent and intact class, pre-test and post-test control group experimental design. The three factorial levels are the experimental groups (gallery walk, concept mapping instructional strategies and conventional method). The second factorial level is gender occurring in either male (M) or Female (F), while the last factorial level is the age level. This design will allow for the experimental groups to receive treatments while the control group will not receive treatment. However, both the experimental and control groups will receive the pre-test and post-test before and after the treatment respectively. The graphical expression of the experimental design is presented in Table 1.

**Table 1: 3x2x3 Pre-test, Post-test Control Group Factorial Design on Gallery Walk and Concept Mapping Instructional Strategies**

Groups Levels	Pre-test	Treat-ment	Gender	Age	Post test
Experiment Group 1(GW)	O <sub>1</sub>	X <sub>1</sub>	M/F	G <sub>1</sub> /G <sub>2</sub> /G <sub>3</sub>	O <sub>2</sub>
Experiment Group 2(GW)	O <sub>3</sub>	X <sub>2</sub>	M/F	G <sub>1</sub> /G <sub>2</sub> /G <sub>3</sub>	O <sub>4</sub>
Control Group	O <sub>5</sub>	–	M/F	G <sub>1</sub> /G <sub>2</sub> /G <sub>3</sub>	O <sub>6</sub>

On the dependent variables are then attributed to the effect of independent variables.

The population for this study comprise all the senior secondary school students in Kwara State offering Civic Education, while target population is SSS II students offering Civic Education in the Kwara State. Stratified sampling technique was used to select public senior secondary schools in the three Senatorial Districts namely: senior secondary schools in Kwara Central (78), Kwara North (82) and

Kwara South (165). The researcher used random sampling technique to choose one school each from the three senatorial districts. The researcher ensured that the school chosen had similar characteristics in terms of same admission policy, co-educational, schools not situated within the same geographical location and must be owned by the government. Four researcher's designed instruments were used to collect data for the study. They are: A teaching package on Gallery Walk Teaching Strategy; A teaching package on Concept Mapping Teaching Strategy; A teaching instructional package on Traditional Teaching Strategy; and A Civic Education Performance Test (CEPT).

The researcher used 2 sets of 50 multiple-choice questions tagged Civic Education Performance Test (CEPT) for both pre-test and post-test. For the pre-test, the questions were derived from what the students have been previously taught in Civic Education in their first year of Senior Secondary School. The items for the post-test were derived from topics such as Dangers of Political Apathy, Achieving Popular Participation in politics, limitation of Human Right and Drug and Drugs Abuse as contained in the Senior Secondary School II Civic Education Scheme of Work. The validity of the instrument was determined by the experts in Department of Social Sciences Education, University of Ilorin for face and content validity. The reliability of instrument was analyzed through split-half method of reliability and each item on questionnaire was subjected to a reliability test and 0.73 reliability coefficient was established. All the hypotheses postulated were tested with the use of Analysis of Covariance (ANCOVA) at 0.05 level of significance.

## **Results**

**Hypotheses 1:** There would be no significant effects of gallery walk and concept-mapping on the academic performance of Senior Secondary School Students Civic Education.

In order to test s hypothesis one, performances of the participants in pretest and posttest test items in the three groups (control, gallery walk and concept mapping) were collated and subjected to one-way ANCOVA at 0.05 level of significance and the out is reported in Table 4.

**Table 2: One-way ANCOVA Showing Difference in the Performance of Participants Taught Using Gallery Walk and Concept-Mapping and those Taught Using**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Inference
Corrected Model	3793.863	3	1264.621	107.174	.000	
Intercept	6000.185	1	6000.185	508.503	.000	
Pretests	2.946	1	2.946	.250	.618	
Groups	3788.801	2	1894.400	160.546	.000	S
Error	1333.367	113	11.800			
Total	111510.000	117				
Corrected Total	5127.231	116				

a. R Squared = .740 (Adjusted R Squared = .733)  
P < 0.05

Table 2 shows the results of one-way ANCOVA showing difference in the performance of students taught using gallery walk and concept-mapping and those taught using conventional method. The output reveals that the calculated significant value (p-value of 0.00) is lesser than the chosen 0.05 level of significance chosen. Hence, the null hypothesis one is not accepted. Thus, there is a significant difference in the performance of students taught using gallery walk and concept-mapping and those taught using conventional method ( $F_{(1,113)} = 160.546$ ;  $p < 0.05$ ). To ascertain where the significant difference lies, posttest mean scores of control and gallery walk and concept-mapping groups were compared and the output is shown in table 5.

**Table 3: Posttest Mean Scores of Control, Gallery Walk and Concept-Mapping Groups**

Groups	N	Subset for alpha = 0.05			Mean Gains
		1	2	3	
Control Group	30	20.6333			
Concept Mapping	41		32.1220		11.47
Gallery Walk	46			34.6087	2.48
Sig.		1.000	1.000	1.000	

Table 3 indicates that control group has the least performance with the mean score of 20.6333 over concept mapping with the mean score of 32.1220 and the mean gain between the two groups is 11.47. Gallery walk has mean score of 34.6087 greater than the mean score of control and concept mapping with the mean score of 20.6333 and 32.12220 respectively with the mean gain of 2.48 between concept mapping and gallery walk. This implies that students that participated in gallery walk group performed better than those other groups.

**H<sub>0</sub>2:** There will be no significant interaction effect of gender and age on the academic performance of Senior Secondary Students taught civic education using gallery walk and concept-mapping and traditional teaching strategies.

In order to test this hypothesis four, performance of students in pretest and posttest test items in a group of students taught civic education using gallery walk and concept-mapping on the basis of gender and age were collated and subjected to One-way ANCOVA at 0.05 level of significance and the out is shown in Table 4.

**Table 4: One-way ANCOVA Showing the Effect of Gender on the Academic Performance of Senior Secondary Students Taught Civic Education Using Gallery Walk and Concept-Mapping and Traditional Teaching Strategies**

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Inference
Corrected Model	4005.457 <sup>a</sup>	17	235.615	20.794	.000	
Intercept	4911.590	1	4911.590	433.463	.000	
Pretest	4.761	1	4.761	.420	.518	
Groups	2375.858	2	1187.929	104.838	.000	S
Gender	12.207	1	12.207	1.077	.302	NS
Groups * Gender	40.406	2	20.203	1.783	.173	NS
Total	111510.000	117				
Corrected Total	5127.231	116				

a. R Squared = .781 (Adjusted R Squared = .744)

Table 4 reveals the results of one-way ANCOVA showing effect of gender and age on the academic performance of senior secondary students taught civic education using gallery walk and concept-mapping and traditional teaching strategies. The output reveals that there is no interaction effect groups plus gender; groups plus age range; gender plus age range; groups, gender plus age range with sig 0.173, 0.128, 0.214 and 0.690 respectively. This therefore implies that there is no significant interaction effect of gender on the academic performance of Senior Secondary Students taught civic education using gallery walk, concept-mapping and conventional teaching method.

### Discussions

Majority of the students taught Civic Education using gallery walk, concept-mapping and conventional teaching method are in the average academic performance. This is in-line with the findings of Iwu and Uzoma, (2015) and Oyesikun (2010) that teachers need to use complimentary methods and strategies in teaching and learning. There was a significant difference in the performance of students taught using gallery walk and concept-mapping and those taught

using conventional teaching method. The findings of this study is corroborated by the findings of Hogan and Cernusca (2011) and Ridwan (2016) where higher statistical significance existed in favour of gallery-walk Strategies.

There was no significant interaction effect of gender on the academic performance of Senior Secondary Students taught Civic Education using gallery walk, concept-mapping and conventional teaching method. This study is in support of previous research findings by Adeyemi (2008) who discovered that gender is not statistically significant on the academic performance of students in cooperative learning situation.

### **Conclusion**

Based on the discussion of the findings of this study, it was concluded that the use of gallery-walk and concept-mapping should be intensified since it is statistically significant on the performance of students taught civic education. In addition, gallery-walk as a method should be encouraged among Civic Education teachers in teaching because the difference in performance was in its favour. It is also concluded that age and gender are not a barrier to the performance of students in the Civic Education classroom.

### **Recommendations**

Gallery Walk and Concept-Mapping as teaching strategies should be encouraged among Civic Education teachers in the delivery of their lessons. Civic Education teachers should not discriminate students based on gender since it did not have any effect on the performance of the students. Teacher training institutions should make student-teachers very conversant with innovative teaching methods and strategies such as gallery walk and concept mapping.

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