

# A Rural-Urban Comparison of the Effectiveness of Think-Pair-Share (TPS) Strategy of Instruction on Senior Secondary School Students' Academic Achievement in Geography

\* Adeyinka, Adebajo Salmon & Ogunbiyi, Oluranti Mary

Department of Language, Arts and Social Science Education, Faculty of Education, Lagos State University, Ojo, Lagos, NIGERIA

Email Address: \* [Salmon.adebanjo@lasu.edu.ng](mailto:Salmon.adebanjo@lasu.edu.ng) , [ogunbiyiolu2002@yahoo.com](mailto:ogunbiyiolu2002@yahoo.com)

To cite This Article: Adeyinka, A. S., & Ogunbiyi, O. M. (2023). A Rural-Urban Comparison of the Effectiveness of Think-Pair-Share (TPS) Strategy of Instruction on Senior Secondary School Students' Academic Achievement in Geography. *CMU Academy Journal of Management and Business Education*, 2(1), 25–34. <https://doi.org/10.53797/cjmbe.v2i1.4.2023>

**Abstract:** The study compared the effect of Think-Pair-Share (TPS) strategy on academic achievement of urban and rural Senior Secondary School students in geography in Lagos State, Nigeria. A quasi-experimental design with four research questions and hypotheses was adopted for the study. Mean and standard deviation were employed to analyze and respond to the research questions, and an independent t-test with a significance value of 5% was used to analyze and test the hypotheses that were obtained from the research questions. Data were collected using Think-Pair-Share Geography Achievement Test (TPSGAT) with 50 Multiple Choice Objective Questions. A multistage sampling technique was adopted in selecting the schools and students involved in the study. In all, four senior secondary schools were selected based on location (2 schools from urban and 2 schools from rural areas). In each region, one school served as an experimental group and one as a control group. The experimental groups from both regions (urban and rural areas) were taught through Think-Pair-Share (TPS) while control groups were taught using Conventional Teaching strategy. Findings revealed that schools taught with Think-Pair-Share (TPS) strategy got better academic performance than those taught with conventional teaching strategy in both locations. Also, it was discovered that the performance of rural school students was better compared to that of urban school students with much statistically significant difference when exposed to TPS. The study therefore recommended among others, that: curriculum planners should ensure the inclusion of TPS among recommended strategy for teaching secondary school students of Geography irrespective of school location; curriculum planners should restructure Geography curriculum in such a way that it will accommodate the use of TPS on the school timetable, and that schools should ensure teachers are trained in the application of TPS strategy for teaching-learning processes.

**Keywords:** Think-Pair-Share (TPS), Student-centered teaching, Academic Achievement, Urban School and Rural School

## 1. Introduction

The recent challenges of attrition and low academic performance of geography students in the Nigerian senior secondary schools is a thing of concern that stakeholders have begun to nurse the fear of possible extinction of geography from the school curriculum. Researchers in Geography have also developed interest in examining the cause(s) of this retrogression. Emanating from their findings are issues that bother teachers conventional methods of teaching (Moses, 2017; Eze, 2021) dubbed “teacher-centered” teaching. This assertion was earlier identified by Khalil, Sabiu and Muhammed (2015) that teachers' factors which largely rest on their methods of teachings are the bane behind students' poor performances witnessed in external examination results in geography. Conventional methods have been discovered to be ineffective to address students' needs and interests and do not give opportunity to the learners to be active participants in classroom's activities (Mapesos, 2017). The effects of this unproductive instructional methods have, in no small measure, indirectly affected the realization of one of the Nigerian national educational objectives which seeks to prepare a child's mind to comprehend and have an objective view of the world, to

acquire the necessary skills, and to develop their “mental, physical, and social abilities and competencies” that someone needs as tools for living in and contributing to society (FME, 2013).

Placing the national objectives in mind and ensuring learners are motivated to optimally get the desired learning experiences in order to succeed in competitive examinations and more importantly survive in any environment they find themselves, proactive learner-centered methods of instruction are desirable. According to Garret (2008), methods of instruction in schools around the world have evolved from teacher-centered learning to student-centered learning. Student-centered learning, as noted by Johnson (2013), makes a student to be an active learner, be a responsible participant in his/her own learning, and move at his/her own pace of learning. An approach that Eze (2021) describes as full of activity and could induce interesting questions by learners towards the environment. Student-centered methods allow learners to construct their own ideas, collaborate and cooperate with one another to devise solutions to problems with minimal involvement of the teacher irrespective of their geographical location.

For several decades, academics have been interested in how a student's geographic location affects their academic achievement. Obasi (2011) in one of his articles, rural-urban differential in the teaching and learning of Geography, asserts that one unfailing indicator of the differences in the academic performance that exist among students in the schools certificate Geography is school location. His finding corroborates Balogun (1976) cited in Obasi (2011) assertion that there was a marked superiority of town (urban) boys over (country side) rural boys when a test of intelligence was administered to 5th grade elementary schools. In a related finding, Due to the advantage of having access to facilities, Owoeye and Yara (2011) found that urban pupils performed better academically than their counterparts in rural schools. The position stands contrary to Oyeromi, Omiyale, Lato, and Oyebamiji (2018) findings which indicated that pupils in rural schools improved more academically than those in urban schools in the key geography-foundational subjects of mathematics and English Language than their counterparts in the urban schools. Of interest to this study, is the remark of Owoeye and Yara (2011) cited in Adebayo, Daniel and Oladipupo (2018) that from literature, in spite of the noticeable disparity that exist in material and human resources between urban and rural schools in Nigeria, no location can claim academic superiority over the other. In a study conducted by Considine and Zappala (2002) the assertion was earlier pointed, with the submission that geographical location is not a significant predictor of outcomes in school performance.

Buttressing all these narratives, is the submission of Fareo (2018) that whatever disparity that exist in the performance between urban and rural schools, it is as a result of inequality in the human and materials resources between the two locations. According to him, giving the necessary qualified staffs and equipment, students in the rural schools would have equal performance with those in urban location. What this implies is that schools have major role to play in terms of provision of necessary and adequate teaching and learning materials and ensuring innovative and resourceful teachers are employed to teach geography. Teachers that would do less of “chalk and talk” but more of activity-based teaching that would allow learners to think and do classroom activities on their own.

Several methods that are learners centered can be found in literature of which the application of TPS strategy is one, and has proved in many fields to be an effective technique of teaching and learning (Tint and Nyunt, 2015; Uzoma and Okol, 2019; Okolocha and Chukwudi, 2020). Think-Pair-Share strategy is rooted in social constructivist theory of Lev Vygotsky which holds the belief that learners should be made to actively “construct their knowledge” and understandings “based on their experiences” and social discourse by integrating new ideas and information with their prior knowledge. It is a strategy created to provide students the space and framework they need to think deeply about a subject matter, develop their own ideas, and then present those ideas to the classmates (Agbede and Ba’aba, 2019). TPS lends itself to cooperative learning technique. It promotes students’ active participation in the classroom by ensuring every student participates in classroom activities, rather than “chalk-talk” in which a teacher asks a question and a student provides response (Simon, 2013). Through peer-to-peer interaction such as Think-Pair-Share, collaborative thinking can spur abundance of knowledge (“Student-centered learning”, 2023).

The original model of Think-Pair-Share as postulated by Lyman (1981) essentially consists of three steps. However, the model has been adapted to different teaching contexts including technology integration. Teacher acts as a facilitator in this opening phase and pose a question or an issue to the students. Students are given enough time to think critically and generate unique solutions to the challenge on their own. The second step is called “The Pair”. This stage requires students to pair up, ideally with the person seated nearest to them to form different “couples”. Zeal (2017) claims that at this level, the teacher may allow students to share their initial thoughts or responses with one another, depending on the nature of the activity and the topic. The third and last step is “The Share,” which requires partnered students (couples) to present to the class what they have agreed upon while the teacher provides the necessary scaffolding at every stage of the presentation. According to Lyman (1981), this can be accomplished by having the teacher ask one or more pairs of students for their responses in a conventional manner. For a good presentation, diagrams, drawings and practical demonstration of geographical concepts can be an alternative way to share the answers with the entire class, this however depends on the subject and the question type. As a follow up, teacher at this stage moderates the lesson (responses from students), provides necessary scaffolding at every stage of the presentation, summarizes the lesson and evaluates the students accordingly. Assessment is based on the responses the couples provide either in oral or written form. Parker and Arase (2021) adapt and rename these three elements as:

time to think, time to share with a partner, and above all, time to share among pairs to a larger group. Concerning its variations, (Zeal 2017) argued that, the limit to its level is based on the teacher's degree of creativeness.

Okolocha and Chukwudi (2020) maintain that one of the most effective questioning technique a teacher could adopt in a class discussion to maintain active participation of all students is Think-Pair-Share (TPS). They assert that, TPS gives each student the chance to contribute an idea and respond to each question the teacher poses. In their submission, Lujan and DiCarlo (2005) posit that Think-Pair-Share (TPS) stands out as an effective cooperative learning technique due to its ability to boost students' engagement in large-group discussions. Applying the strategy, however, links the social and cognitive aspects of learning, encouraging the development of reasoning and knowledge production (Zeal, 2017).

According to Radhakrishna, Ewing, and Chikthimmah (2012), active learning strategies like TPS help learners learn more by collaborating with their classmates and teachers. It gives students the chance to practice what they are learning in class, see what others are doing, and engage in dialogue with others and with themselves. These opportunities help them think critically and apply what they have learned in class to real-world situations.

**The advantages accrued to Think-Pair-Share are not quantifiable.** Macdonald (2004) identified some of these advantages to include: (i) easy preparation of the strategy within a limited period (ii) agreeable nature of TPS to different kinds and levels of questions (iii) affording students the opportunity to actively participate in classroom activities (iv) allowing fluid nature of group formation (v) engagement of all class members in classroom discussion during and after the process which is generally more fruitful.

Azlina and Ahmad (2010) stated that TPS strategy is a multi-mode discussion. It provides “processing time and builds in wait-time” (Tint and Nyunt, 2015) that promote reflective and critical thinking. Abiodun, Asanre, Ogundeji, Odupe and Rasaki (2022) similarly asserts that TPS gives students the predilection to participate actively in any classroom activity. According to them the general idea is to have the learners think independently or solve a problem quietly, then pair up and share their thoughts with someone nearby.

In spite of these advantages, some weaknesses are also evident in this technique. Diyah and Wiwiek (2013) noted that, not all students would focus on the exercise given because they believe they can easily get the solutions from their partners during the process of sharing. Above all, the possibility that students who have low understanding about the topic given to likely cause distractions by chatting with others is also a grey area of this strategy. However, to overcome this challenges, Diyah and Wiwiek (2013) posit that time limit should be given to participating students to perform the assigned task in order to have an opportunity to discuss out the topic.

However it is, Think-Pair-Share as narrated by Yerigan (2008) is an active learning technique that allows students to process theory, allows for wait time, allows for rehearsal, improves the depth and breadth of thinking, raises participation levels, allows the teacher to assess student understanding, and gives the teacher time to make instructional decisions and is adoptable in any geographical location be it rural or urban. The technique gives room for interactions among learners through the process of cooperation and collaboration and greatly lean on constructivist model of instruction. Its propensity to make learners independently acquire their own knowledge with mere scaffolding from a teacher is expected to shift the paradigm in the teaching-learning of geography irrespective of geographical location.

### 1.1 Statement of the Problem

The persistent reduction in the enrolment figures of students in the Senior Secondary School Geography and the consequent yearly decrease in the number of students enrolled for “West African Senior Secondary Certificate Examinations (WASSCE)” in the recent past is becoming worrisome. A look at the WASSCE enrolment in Geography for 2017 to 2022 shows that within a space of six years there was 20% decline in the enrolment figure of students who put in for the examination (WAEC Geography Results, 2017-2022). If this trend is not checked, in a few decade to come, Geography may cease to exist as a Nigerian Senior Secondary school subject. The causes of this ugly situation are not farfetched. The most pressing among them is the teacher’s methods of teaching Geography, which Ajaps (2015) describes as theoretical and devoid of hands-on approaches. Methods that portray Geography as a difficult and boring subject with a negative perception among students that anyone who desires to make a good grade should distant himself/herself from it. A diversification in strategies is therefore needed to boost students’ enrolment and change their perceptions towards the ease of learning and achieving better academic performance in Geography, and above all make geography a competitive subject in the school curriculum. From this position, this study investigates the comparative effectiveness of TPS teaching strategy on the academic achievement of rural and urban Senior Secondary School geography students.

### 1.2 Research Questions

**The study provided responses to the following questions.**

- i) Do rural geography students who were taught using the TPS strategy and those who were taught using the CT strategy differ in mean academic achievement scores?
- ii) Do urban geography students taught with the use of TPS strategy and those with CT strategy differ in mean academic achievement scores?

- iii) Is there a difference in the mean academic achievement scores of geography students taught with TPS based on location?
- iv) What is the difference in the mean academic achievement scores between geography students who were taught using TPS and CT techniques across all schools?

### 1.3 Research Hypotheses

The hypotheses below were tested.

- i) There is no significant difference in the post-test means of academic achievement of rural geography students taught with TPS and CT strategies.
- ii) There is no significant difference in the post-test mean of academic achievement of urban geography students taught with TPS and CT strategies.
- iii) There is no significant difference in the post-test mean of academic achievement scores of geography students exposed to TPS based on location.
- iv) There is no significant difference in the post-test mean of academic achievement scores of geography students on TPS and CT strategies.

## 2. Methodology

The study used a quasi-experimental research design of pre-test and post-test, non-equivalent control group. Intact senior secondary school two Geography classes were involved in both the treatment and control groups. The variables in the study were crossed in a  $1 \times 1 \times 2$  factorial matrix (one independent variable- think-pair-share strategy), one level of dependent variable (academic achievement) and two levels of moderating variable (urban and rural). The arrangement of the design is shown below:

O <sub>1</sub>	X <sub>1</sub>	O <sub>2</sub>	Experimental Group (E)
O <sub>3</sub>	-	O <sub>4</sub>	Control Group (C)

Where:

- O<sub>1</sub> represents pre-test for Experimental Group
- X<sub>1</sub> represents treatment given out to Experimental Group
- O<sub>2</sub> represents Post-test for Experimental Group
- O<sub>3</sub> represents pre-test for Control Group
- O<sub>4</sub> represents Post-test for Control Group

All senior secondary school two (SSS 2) Geography students in public schools in Lagos State, Nigeria, made up the study's target population. The students' age range was between 14 and 18 years.

Lagos is the most populous city in Nigeria and in West Africa (Lagos, March 21, 2023). It comprises of twenty (20) Local Government Areas (LGA) of which sixteen (16) are classified as urban and four (4) as rural (Odukoya and Fayemi (2019). Lagos State has a total of three hundred and twenty-one (321) Senior Secondary Schools with students' population of 228,660 (Lagos State Census Report, 2017-2018). Two Local Government Areas were involved in the study: one (1) among urban and one (1) among rural. The study selected Ojo LGA as urban and Badagry LGA as rural.

A multistage sampling technique was used to select the respondents involved in the study. Stage one of the sampling involved the selection of one (1) Local Government Area among the urban (Ojo) and one (1) among the rural (Badagry). Stage two involved the selection of four (4) schools; two (2) from among the fifteen (15) Senior Secondary Schools in Ojo (urban) and 2 from among the fourteen (14) Senior Secondary Schools in Badagry (rural). The next stage was the selection of four (4) intact classes; one (1) geography class from each of the four (4) schools giving rise to two (2) urban schools and two (2) rural schools used in the study. In each region one (1) school served as a control group and one (1) an experimental group. Thus, a total of ninety-one (91) geography students participated in the study which represented the sample size.

The instrument adopted for the study was tagged "Think-Pair-Share Geography Achievement Test (TPSGAT)". The instrument which consisted of 50-item Multiple Choice Objective Questions (MCOQ) was constructed by the researcher. Before the commencement of the treatment, a pilot study was conducted. Pilot research was carried out before the treatment started. Twenty participants from senior secondary schools two (2) who were not a part of the study sample but were members of Geography students in a public school took the test as a trial run. The TPSAT's dependability was analyzed using the Pearson Product Moment Correlation (PPMC). With a reliability rating of 0.86 obtained, the test was determined to be reliable and a good measure of the level of academic achievement of the learners. The intervention, however, took seven weeks. The topics taught were extracted from the Senior Secondary School Two (SSS 2) curriculum. The experimental groups from both locations (urban and rural) were taught using Think-pair-share (TPS) while Control Groups were taught using Conventional Teaching strategy. A pre-test was administered before the intervention to determine the students' entry performance, and a post-test was administered

following the intervention. Both descriptive and inferential statistics were used in the analyses. Descriptive statistics (tables, means and standard deviation) were used to examine the research questions while inferential statistics of the independent t-test was applied to test the hypotheses.

### 3.. Results

Data analyses with respect to the research questions and the hypotheses were presented in tables.

**Research Question One:** Do rural geography students who were taught using the TPS strategy and those who were taught using the CT strategy differ in mean academic achievement scores?

**Table 1a** Mean and Standard Deviation of Academic Achievement of Rural Geography Students on TPS treatment and those on CT Strategy

Group (Rural Schools)	N	Pre-test.		Post-test.		Mean Difference
		Mean	S. D	Mean	SD.	
Experimental Group (TPS)	30	40.43	6.51	69.42	5.22	28.99
Control Group (CT)	18	41.41	7.91	55.61	6.67	14.2
Diff. in mean between Groups						14.79

According to table 1a, the experimental group's mean score for pretest was 40.43, standard deviation of 6.51 and its mean score for posttest was 69.42, standard deviation of 5.22. Contrarily, the Control Group's pretest mean score was 41.41, standard deviation of 7.91 and its mean for posttest score was 55.61 standard deviation of 6.67. While both groups recorded mean gain, experimental group however, showed a higher gain of 28.99 more than the control group of 14.2. It can therefore be said that students exposed to TPS strategy (experimental group) performed better in geography than those taught with CT strategy (control group) with a difference of 14.79 in the mean gain.

In order to ascertain if the observed difference in the post-test mean between the two strategies was significant, hypothesis one which states that there is no significant difference in the post-test mean of academic achievement of rural geography students taught with TPS and CT strategies was tested.

**Table 1b** Test of Significant Difference between the Post-test means of Rural Geography Students on TPS and CT Strategies

Groups	N	Mean	SD	DF	T-Cal	P-value	T-Critical
Experimental Group (TPS)	30	69.42	5.22	46	7.886	0.0001	2.009
Control Group (CT)	18	55.61	6.67				

The analysis in table 1b shows the hypothesis one is rejected since the t-calculated value of 7.886 is higher than the t-table value of 2.009 at 46 degrees of freedom. In summary, t-statistics is 7.886, with DF=46 ( $p < 0.05$ ). Therefore, it may be inferred that there is a significant difference between the post-test mean scores of academic achievement of rural geography students on TPS and CT strategies.

**Research Question Two:** Do urban geography students taught with the use of TPS strategy and those with CT strategy differ in mean academic achievement scores?

**Table 2a** Mean and Standard Deviation of Academic Achievement of Urban Geography Students on TPS and CT Strategies

Group	N	Pre-test'		Post-test'		Mean Gain
		Mean	SD	Mean	SD	
Experimental Group (TPS)	21	43.72	7.77	66.52	4.31	22.8
Control Group (CT)	22	40.13	8.51	57.32	5.22	17.19
Diff. in mean between Groups						5.61

According to the descriptive statistics in table 2a, urban students placed in experimental group (TPS strategy) had a pre-test mean score of 43.72, with Standard Deviation of 7.77, and a post-test mean score of 66.52, Standard Deviation of 4.31, as opposed to students placed in the control group who were taught with CT and had a pre-test mean score of 40.13, Standard Deviation of 8.51, and a post-test score of 57.32, Standard, Standard Deviation of 5.22. Therefore, it can be stated that, with a mean difference of 5.61, students in the experimental group, that is, those on TPS strategy outperformed others in the control group, that is, those taught with CT strategy.

In order to answer hypothesis two which states that, there is no significant difference in the post-test mean of academic achievement of urban geography students on TPS and CT strategies, an inferential analysis was conducted using independent t-test.

**Table 2b** Test of Significant Difference between the Post-test means of Urban Geography Students on TPS and CT Strategies

Groups	N	Mean	SD	DF	T-Calculated	P-value	T-Critical
Experimental (TPS)	21	66.52	4.31	41	6.286	0.0001	2.042
Control (CT)	22	57.32	5.22				

Table 2b indicates that hypothesis two is rejected because the t-calculated value (6.286) is higher than the t-table value (2.042) at 41 degrees of freedom. In summary, t-statistics is 6.286, with Df=41 ( $p < 0.05$ ). Therefore, it can be inferred that there is a notable difference between the post-test means of academic achievement of urban geography students on TPS and CT strategies.

**Research Question Three:** What is the **difference between the mean academic achievement scores of geography students exposed to TPS based on** locations?

**Table 3a** Mean and Standard Deviation of Academic Achievement of geography students on TPS Strategy Based on Location

Location	F	Pre-test		Post-test		
		Mean	SD	Mean	SD	Mean Gain
Urban Area	21	43.72	7.77	66.52	4.31	22.8
Rural Area	30	40.43	6.51	69.42	5.22	28.99
Diff. in Mean between Locations						4.19

Table 3a shows that urban students placed in experimental group had mean score of 43.72 in pre-test and 66.52 in post-test with standard deviations of 7.77 and 4.31, respectively. Contrarily, rural students taught under experimental group had mean score of 40.43 in pre-test and a mean score of 69.42 in post-test, with standard deviations of 5.22 and 6.51, respectively. However, students in rural regions had a greater mean gain of 28.99 than students in urban areas of 22.8. The analysis further shows that rural students performed better in geography than the urban students with a mean gain of 4.19 when they were both treated with the use of TPS strategy.

To ascertain whether the observed difference was significant, hypothesis three which states that there is no significant **difference in the mean academic achievement scores of geography students taught with TPS based on** location was further tested.

**Table 3b** Test of Significant Difference in the Post-test Means of Geography Students on TPS Strategy Based on Location

Location	N	Mean	SD	DF	T-Calculated	P-value	T-Critical
Urban	21	66.52	4.31	49	2.093	0.00415	2.009
Rural	30	69.42	5.22				

From table 3b, the hypothesis three is rejected because the t-calculated value of 2.093 is higher than the t-table value of 2.009 at 49 degree of freedom. In summary, t-statistics is 2.093, with df=49 ( $p < 0.05$ ). The post-test mean of academic achievement scores of geography students who were exposed to the TPS strategy in urban and rural settings may thus be inferred to have a significant difference.

**Research Question Four: What is the difference between the mean academic achievement scores of geography students exposed to TPS and CT strategies?**

**Table 4a** Mean and Standard Deviation of Academic Achievement of Geography Students on TPS and CT strategies in all Schools

Groups	Pre-test			Post-test		
	N	Mean	SD	Mean	SD	Mean Gain
Experimental Group (TPS)	51	42.08	7.14	67.97	4.76	25.89
Control Group (CT)	40	40.77	8.21	56.47	5.95	15.72
Diff. in Mean between Groups						10.17

Table 4a shows that the experimental group's pre- and post-test mean scores were 42.08 and 67.97, respectively, with standard deviations of 7.14 and 4.76. However, the control group's pretest and post-test mean scores were 40.77 and 56.47, respectively, with standard deviations of 8.21 and 5.95. Therefore, the mean achievement gain for the treatment is 25.89 while for the control group was 15.72 with a mean gain difference of 10.17. This indicates that the treatment group taught with the use of TPS had an overriding advantage over the control group taught with CT strategy.

In order to answer the hypothesis four which states that there is no significant difference is no significant difference in the post-test mean of academic achievement scores of geography students on TPS and CT strategies, independent student t-test analysis was conducted.

**Table 4b** Test of Significant Difference in the Post-test Means of Geography Students on TPS and CT strategies in all Schools

Group	N	Mean	SD	DF	T-Calculated	P-value	T-Critical
Experimental (TPS) Group	51	67.97	4.76	89	10.246	0.0001	1.984
Control (CT) Group	40	56.47	5.95				

According to table 4b, hypothesis four is rejected because the t-calculated value of 10.246 is higher than the t-table value of 1.984 at 89 degrees of freedom. In summary, t-statistics is 10.246 with df=89 ( $p < 0.05$ ). The result showed that there is significant difference in the mean of post-test academic achievement scores of Geography students on TPS and CT strategies in all schools.

**4. Discussion of Findings**

The findings from this study indicate that students on TPS treatment had better academic performance than those taught with CT strategy irrespective of geographical location (rural and urban) in Lagos State. The result agrees with the earlier works of many authors such as Wuryandani and Herwin, (2021); Okolocha and Chukwudi (2020) and Abiodun, Asanre, Ogundeji, Odupe and Rasaki (2022), who asserted that TPS model enhance academic performances of students when effectively utilized. The effectiveness of this teaching technique however lies in its propensity to enhance students' participation in the classroom by promoting their level of positive engagement and interaction instead of the rote or recitation method of instruction (Simon, 2013). This finding invariably has escalated the power of an effective teaching method like Think-Pair-Share (TPS) over locational factors in determining the academic prowess of students.

The result of the findings also demonstrated that when Think-Pair-Share (TPS) was employed, students in rural regions outperformed those in urban areas with a statistically significant difference. While popular opinions of many researchers (Owoeye and Yara, 2011; Achor, Chianson-Akaa and Ogbaji, 2022) have been that students in urban areas do better than those in rural areas in achievement tests, this studies has revealed otherwise when both locations were treated using Thin-Pair-Share baring all other factors such as availability of instructional materials, qualified teachers, and basic amenities in schools among others that have given undue advantage to the urban schools (Fareo, 2018). Above all, the adoption of TPS in the rural schools gives students the opportunity to make their own independent findings, interact with one another, think critically and ask questions from the teacher who only acted as a facilitator with utmost attention to students' challenges.

**5. Conclusion**

The study examined the comparative effects of Think-Pair-Share (TPS) strategy on students' academic achievement in Lagos State's rural and urban schools. From the findings, it was obvious that students placed on TPS strategy outperformed those on conventional methods of instruction in both locations. What this implies is that when a rightful technique of teaching is adopted in classroom teaching and learning, the effect and influence of other extraneous factors become unnoticeable. Furthermore, the potent effect of TPS was seen when a comparison was made in terms of

students' achievement between rural and urban schools when both were exposed to TPS. The result vividly showed that rural geography students outperformed their urban counterparts when achievement was put into context. Thus, it becomes important if Geography is to take its foremost position in the senior secondary school curriculum to engender proactive, learner-centered instructional strategy such as TPS into the classroom. TPS has proven, from the study, to be effective in any geographical location (urban and rural) and has established itself as a strategy that could change the plight of rural students into brighter academic performance. Evidence in the field showed that the use of TPS gave opportunity to the students not only to work cooperatively to solve given problems but they learnt to think critically before answering questions. By and large, it has become glaring from this finding that effective use of TPS would discard the erroneous belief that students from urban setting are academically better than those in rural areas.

## 6. Recommendations

Consequent on the findings above, the following suggestions were made. That:

1. Curriculum planners should ensure that TPS forms an important part of instructional strategy recommended for teachers to adopt in teaching secondary school Geography syllabus irrespective of school location.
2. TPS is time-consuming and might seem difficult to apply on the existing Geography curriculum with its attendant inadequate time allotted to Geography on the school's timetable. Curriculum planner should therefore restructure Geography curriculum in such a way that it will accommodate the use of TPS on the timetable.
3. TPS is a strategy that is procedural; teachers would therefore need to be well acquainted to the steps involved before its adoption. This implies that teachers would need to attend workshop, seminar and symposium on the TPS strategy to be able to apply it effectively.
4. Teachers should stretch and entrench the values of active participation, cooperation and collaboration that TPS offers to the learners, that at any point in time they could solve problems independently and cooperatively with little or no contribution from their teachers.
5. Authors of geography textbooks should lean on the advantage of TPS to write books that are amenable to TPS rather than the usual teacher-centered textbooks that flood market. With this it will become easier for students to learn on their own with less intervention from the teachers.
6. TPS becomes more effective when adequate and suitable instructional materials or other devices are available to aid lessons. It is therefore very necessary for government and school administrators to ensure hands-on instructional materials on every topic are provided to enhance the proactive use of TPS.
7. Field observations show that many schools, especially those in rural regions, lack the facilities and instructors who are trained to teach geography, which has been one of the major variables impacting students' performance. Thus, enabling environments such as suitable classrooms, geography laboratory, geography garden and qualified and competent geography teachers should also be provided.

## References

- Abiodun, T.O., Asanre, A. A., Ogundeji, M.A., Odupe, T. A & Rasaki, M. G. (2022). Effect of think-pair-share strategy on student achievement in senior secondary school mathematics. *FNAS Journal of Mathematics and Science Education*, 3(2), 20-25.
- Achor, E., Chianson-Akaa, M., & Ogbaji, E. (2022). Performance of Students of Varied Learning Styles Taught Physics Using Think-Pair-Share Learning Strategy. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 13(1), 27-33.
- Adebayo, O. O., Daniel O. O. & Oladipupo, F.C. (2018). Impact of School Location on Academic Performance of Home Economics Students in Junior Secondary School Certificate Examination, *IJRAR- International Journal of Research and Analytical Reviews*, 5(2)
- Agbede, A & Ba'aba, A.A. (2019). Effects of Jigsaw and Think-Pair-Share Methods on Students' Academic Performance in Accounting in Colleges of Education in North-East Nigeria. *International Journal of Innovative Social & Science Education Research*. 7(2), 119-132.
- Ajaps, S., (2015). Geography Education in the Google age: A Case Study of Nsukka Local Government Area of Nigeria. *Second 21st Century Academic Forum Boston*, 5(1).
- Aremu, A. O. (2012). Development and validation of academic performance 5-Factor Inventory. *Ibadan Journal of Educational Studies*, 1(2), 321 – 334.
- Azlina, N. & Ahmad, N. (2010). CETLs: Supporting Collaborative Activities among Students and Teachers Through the Use of Think- Pair-Share Techniques. *International Journal of Computer Science*. Issues. 7.
- Balogun, I. O. B. (1976). Intellectual and residential correlates of reading achievement in Nigeria secondary school. *West African Journal of Education*, 20, 245-256.



- Considine, G. & Zappala, G. (2002). The influence of social Economic disadvantage in the academic performance of school students in Australia. *Journal of Sociology*, 38, 127-148
- Diyah, R. F., & Wiwiek, I. (2013). The effect of Think-Pair-Share technique on the eighth grade students' reading comprehension achievement at SMPN 3. *Bangsalsari Jember, Pancara*, 2 (2), 41-48.
- Eze, E. (2021) Why Secondary School Geography Students Perform Poorly in External Examinations, *Journal of Geography*, 120 (2), 51-60, DOI: [10.1080/00221341.2020.1860114](https://doi.org/10.1080/00221341.2020.1860114)
- Fareo, D. O. (2018). Rural and urban differential in teaching and learning geography in senior secondary schools in Gombi Educational Zone of Adamawa State. *International Journal of Education and Social Science Research*, 1(4).
- Federal Ministry of Education (FME) (2004). *National Policy on Education* (4th Edition). Lagos: NERDC Press
- Garrett, T. (2008). *Student-Centered and Teacher-Centered Classroom Management: A Case Study of Three Elementary Teachers*. *Journal of Classroom Interaction*, 43, .
- Johnson, E. (2013). *The Student Centered Classroom: Social Studies and History*. 1, p.19.
- Khalil, M. S., Sabiu, N. & Muhammed, S. N. (2015). A brief look at geography education in Nigeria: A case study of Kano. *Dutse Journal of Pure and Applied Sciences* 1(1), 11 – 18
- Lagos State School Census Report (2018). Lagos State Ministry of Education, Lagos
- Lagos. (2023, March 21). Wikipedia. Retrieved 08:34, May 6, 2023 from <https://simple.wikipedia.org/w/index.php?title=Lagos&oldid=8737985>.
- Lujan, H., & DiCarlo, S. E. (2005). Too much teaching, not enough learning: what is the solution? *Advances in Physiology Education*, 30(1), 17-22
- Lyman, F. T. (1981). The responsive classroom discussion: The inclusion of all students in Anderson, A (Ed.), *Mainstreaming Digest*, 109-113. College Park: University of Maryland Press
- Macdonald, H. (2004) Geologic Puzzles: Morrison Formation, *Starting Point*. Retrieved Sept 9, 2022, from <https://serc.carleton.edu/introgeo/interactive/tpshare.html>
- Mapesos, R.M.L. (2017) Traditional Approach. Researchgate.com
- Moses, A. A. (2019). Understanding the Causes of Students' weak Performance in Geography at the WASSCE and the Implications for School Practices; A Case of Two Senior High Schools in a Rural District of Ghana. *International Journal of Research and Innovation in Social Science (IJRISS)*. III (III), 295-307
- Obasi, M.N. (2011). Urban-Rural Differential in Teaching and Learning of Geography in Ahiazu Mbaise and Owerri Municipal Council in IMO State. *Environmental Research Journal*, 5: 140-148.
- Obe, E.O. (2004). Rural/urban and sex difference in scholastic aptitude on primary school finalist in Lagos State. *Education and Development*, 4(2), 123-134.
- Odukoya, O. & Fayemi, M (2019). A Rural-Urban Comparison of Knowledge, Risk- Factors and Preventive Practices for Colorectal Cancer among Adults in Lagos State. *Asian Pac J Cancer Prev*. 20(4): 1063–1071. doi: 10.31557/APJCP.2019.20.4.1063
- Okolocha, C.C., & Chukwudi, F.N. (2020). Effect of Think-Pair-Share Instructional Technique on Secondary School Students' Academic Achievement and Retention in Financial Accounting in Abia State, *ISJSSR*, 3(1).
- Owoeye, J.S. & Yara, P.O. (2011). School location and academic achievement of secondary school students in Ekiti State, Nigeria. *Kampala International Journal, Kampala, Uganda*. 7 (5)
- Oyeromi, S. O., Omiyale, G. T., Lato, E.T., Oyebamiji, W. T. (2018). Analysis of Rural/Urban Students' Academic Performance in Oyo State, Nigeria: *Implication for Educational Planners*. *International Journal of Research and Innovation in Social Science (IJRISS)*, II (VII).
- Parker, J. and Asare, I. (2021). Teacher Trainees Perceptions of Think-Pair-Share Technique in Teaching Classification of Living Organisms in Colleges of Education – Ghana. *Science Education International*. 32(4), 368-373
- Radhakrishna, R., Ewing, J., & Chikthimmah, N. (2012). [https://www.nactateachers.org/images/Sep12\\_3\\_TPS\\_Think\\_Pair\\_and\\_Share\\_as\\_an](https://www.nactateachers.org/images/Sep12_3_TPS_Think_Pair_and_Share_as_an)
- Simon, C.A (2013). *Strategies guide series differentiating instruction*, Urbana Illinois: NCTE publisher

- Student-centered learning.( 2023, April 28 ). In *Wikipedia, The Free Encyclopedia*. Retrieved 00:11, April 28, 2023, from [https://en.wikipedia.org/w/index.php?title=Student\\_centered\\_learning&oldid=1150981300](https://en.wikipedia.org/w/index.php?title=Student_centered_learning&oldid=1150981300)
- Tint, S. & Nyunt, E. (2015). Collaborative Learning with Think-Pair -Share Technique. *Computer Applications: An International Journal*. 2. 1-11. 10.5121/caij.2015.2101.
- Uzoma, J. I. & Okoli, J. N. (2019). Effect of think-pair-share instructional strategy on secondary school students' academic achievement in Biology in Anambra East Local Government Area, Anambra State. *UNIZIK Journal of STM Education*, 3(1), 64-75
- Wuryandani, W & Herwin. (2021).The effect of the think pair share model on learning outcomes of Civics in elementary school students. *Cypriot Journal of Educational Science*. 16(2), 627-640. <https://doi.org/10.18844/cjes.v16i2.5640>
- Yerigan, Tanya. (2011). Getting Active in The Classroom. *Journal of College Teaching & Learning (TLC)*. 5. 10.19030/tlc.v5i6.1250.
- Zeal, A. (2017). Effect of Think Pair Share in Nigeria. [https://www.academia.edu/39902879/Effect\\_of\\_Think\\_Pair\\_Share\\_in\\_Nigeria](https://www.academia.edu/39902879/Effect_of_Think_Pair_Share_in_Nigeria)