Effect of Think-Pair-Share Strategy on Senior Secondary School Students' Performance in Reading Comprehension in Gombe State, Nigeria

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Abstract
This study focused on examining the effect of think-pair-share strategy (TPS) of teaching reading comprehension on the performance of senior secondary school students in Gombe state, Nigeria. The target population comprised all senior secondary school students in 134 public secondary schools in Gombe. Simple random sampling technique was used to select two intact classes in two secondary schools which gave a sample of 91 students were used for the study. Quasi experimental research design with pre-test post-test experimental and control group were used with 47 students in the experimental group and 44 students in the control group. Data was collected using reading comprehension test. The reading comprehension test had a reliability index of 0.81 using test rest method while analysis was run using mean, standard deviation for the research question and independent sample t-test for research hypothesis. Results showed a mean difference of 1.76 and 0.21 for experimental and control groups respectively indicating that the former group achieved a higher score when compared with their counterparts from the control group in the reading comprehension test. Hence, it was concluded that the TPS strategy used in the reading comprehension class has significantly influenced students' performance in reading comprehension. Recommendations were that English language teachers should use the think-pair-share strategy to improve active participation of students in reading comprehension class and beyond.
Keywords: Reading Comprehension, Interactive Activities, Think-Pair-Share Strategy

Introduction
Reading has been described as the interaction between a person and a text. It is one of the four basic language skills that must be learned consciously. In fact, Adeniji and Omale (2010) explained that most of the information transmitted during teaching and learning is obtained through reading. Hence, reading is an indispensable life skill and a foundation for a child's achievement in and out of school.

Reading comprehension on the other hand encompasses not just the ability to pronounce words from a text but also a combination of the readers' prior experiences and background as well as the text itself. This is perhaps the reason Agussatriana (2020) argued that comprehending a text is not as easy as we think. In Nigeria, English language is spoken as a second language (L2) which means that most Nigerians learn English language after they have learned their first language (native language). By implication, students could face some challenges in learning such second language as evidenced in their performance in examinations despite learning the language for many years. Concerned scholars have tried to come up with viable means of addressing such challenges by first identifying the nature and causes of the problem. Therefore, Yusuf (2016), Syafii (2018) and Agussatriana (2020) confirmed that the strategies used by teachers in teaching reading comprehension are too conventional and hardly improve students' active involvement in classroom activities.

In addition, Syafii (2018) explained that the traditional methods employed by most English language teachers as well as textbook oriented practice in most classrooms has continued to constitute major hindrance to students' participation in learning activities. Supporting this view, Agussatriana (2020) added that the conventional methods used are boring, teacher-centred, lack motivation, uninteresting, and devoid of sharing of ideas among students or groups. All these negativities culminate into the poor performance of students in English

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reading comprehension and even in other school subjects since students need to read other subjects and comprehend them as well if they must do well in school. With this background, it becomes pertinent to explore other viable strategies that are student-centred and more promising in improving students' active involvement in classroom activities that will result in improved performance in reading comprehension and by extension, other school subjects as well. One of such student-centred strategy that teachers can use is the think-pair share strategy (TPS).

Think-pair-share is a cooperative learning strategy structured to encourage active individual participation in learning activities. Frank Lyman and associates (1981, NR) are the exponents of Think-Pair-Share. Think-Pair-Share (TPS) is first proposed by Frank Lyman of the university of Maryland in 1981. It was used to help students form individual ideas, discuss and share with others in group. The name was derived from the three stages of students' actions with emphasise on what activity students are to be doing at each of those stages. The TPS strategy encourages students' participation through giving avenue to the students to critically think about an answer, discuss their thoughts with their peers before finally sharing their responses with the entire class. Agussatriana (2020) also added that TPS strategy helps students in areas of peer acceptance, support, self-esteem, interest and most especially academic achievement. Syafii (2018) explained that the procedure of implementing the TPS in teaching is structured in six major steps:

1. Arousing students' motivation
2. Activating students' background knowledge
3. posing a question/ problem
4. Giving students' thinking time
5. Asking them to pair and discuss the solution/ answer with their pair
6. Asking them to share with the whole class.

Syafii (2018) further explained that in the Thinking phase, the teacher poses an open question that is directly related to the lesson at hand and gives the students some time to critically think about possible answers individually. This phase helps students to retrieve information from memory as well as improve critical thinking abilities of the students. As Astiyandha (2013) puts it, the thinking phase has the benefit of giving them the opportunity to collect and organize their thoughts. In the Pairing phase, students are instructed to pair with their peers. Literarily, the students collaborate with the next student sitting beside them to share their thoughts/ answers on the questions asked by the teacher. Again, this phase has advantage of helping students to open up and freely collaborate, discuss ideas and opinions with their peers which helps in shaping their knowledge. Moreso, this also helps shy students or introverts to rehearse their answers with their peers before they share with the whole class. In addition, the pairing phase gives students the advantage of comparing and contrasting their understanding with a peer thereby improving the quality of their responses. In the Sharing phase, the students are encouraged to share their answers with the whole class. Here, Syafii (2018) adds that the other pair may also make additional input to support points or ideas offered by the first pair. This gives the students a sense of belonging that they are not alone on the task. However, Richards and Rodgers (2001) cited in Astiyandha (2013) cautioned that the TPS strategy has the disadvantage of consuming a lot of time and failure of some students to participate can result in the group losing out.

Think-Pair-Share is a form of interactive activity that is structured in such a way that every student in a class gets to participate in learning activities that will result in achieving the goals set out for the lesson. These learning activities are mostly arranged in phases or stages. Techniques of interactive activities include; role play, games, discussion, read aloud, make them guess, tournament, picture talk, think-pair-share and a handful of other techniques that engage the learners in meaningful activities. These activities have the potential of enhancing students' academic performance.

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Statement of the Problem

Stakeholders have continuously expressed concern as to the failure rate of students in school subjects particularly in English reading comprehension which covers a significant part of the overall syllabus. Despite been exposed to the English language right from primary school, students at the senior secondary school level in Gombe state still lack the required competency in English reading comprehension. For instance, in 2018, only 12.2% were able to obtain a credit in English language, Mathematics, and at least three other subjects. This problem has been attributed to poor instructional strategies adopted by the English language teachers when teaching reading comprehension lessons and the effectiveness of the TPS strategy has been investigated by various researchers like Astiyandha's (2013), Rathakrishan, Raman, Singh and Yasin (2019), Karura et. al., (2021) and many others. These researches were carried out in different countries far away from Nigeria. Hence, the researchers opine that think-pair-share strategy could be the means to utilize active participation that would improve learners' performance in the learning process in Gombe state. Consequently, this study focused on investigating the effect of think-pair-share strategy (TPS) on secondary school students' performance in reading comprehension in Gombe state, Nigeria.

Review of Related Literature

In Astiyandha's (2013) study on the effectiveness of think-pair-share method to teaching reading comprehension viewed from students' motivation, the population of the study consisted of 306 students from nine classes out of which a sample of 68 were selected through cluster random sampling. These students were grouped into two: 34 in each group. Two instruments were used for data collection: a questionnaire on motivation and a reading comprehension test. Multi factor analysis of variance 2×2 (ANOVA) and Tukey's test were used for data analysis. Results showed that F= (7.501) ≥ Ft (3.96) and q0 (3.87) ≥ qt (2.89) and students with high motivation have better reading comprehension scores when compared with their counterparts

with low motivation. Hence, the researcher concluded that TPS is an effective method of teaching reading comprehension and that it also depends on the level of the students' motivation. Therefore, teachers should utilize the TPS strategy in teaching reading comprehension.

In Syafii (2015)'s study titled using think-pair-share strategy to increase students' active involvement and to improve their speaking ability, the researcher adopted an action research method with 26 participants and researcher designed checklist, observation schedule, questionnaire and speaking test for the participants. A research collaborator served as the teacher while the researcher served as an observer/rater during the lessons using the TPS. Data collected were analysed using frequency and simple percentage. Findings from the study revealed that the TPS was successful in increasing students' active involvement and improving students' speaking ability. Similarly, 78% of the participants showed remarkable improvement as they were described as actively involved in the class activities when the TPS was used as against only 29% in the preliminary study. While speaking ability rouse to 65% from an earlier 29% in the beginning of the study. Syafii therefore concludes that TPS is very effective in increasing students' active involvement and improving their speaking ability in learning English language. He recommended that the six steps of implementing the think-pair-share strategy should be utilized in improving students' involvement and speaking ability in learning English language.
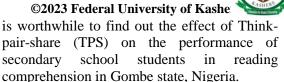
Rathakrishan, Raman, Singh and Yasin (2019) in their study on Think-pair-share strategy in developing students' critical thinking skills adopted a quasi-experimental research design. Macro critical thinking (MAct) assessment instrument from Malaysian management foundation programme was used for students in critical thinking subject. They used 72 students from two classes: experimental and control group as sample in the study. Results showed that students who used TPS in their oral presentation skills achieve greater critical thinking levels compared to students in the control group who do not use TPS. As such,

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they concluded that since TPS gives students time to think about an answer and activates prior knowledge, it has great prospects in improving students' performance in academics. In another similar study titled developing students' reading comprehension through think-pair-share strategy, Agussatriana (2020) used quasi experimental research design with pre-test post-test experimental and control groups. Year two senior secondary school students were the target population and a total of 60 students were used as sample. Data was collected through pre and post-test on reading comprehension. The data were analysed using t-test statistics and findings showed that the t-value of 5.747 was greater than t crit= 2.002 at 0.05 level of significance hence, the researcher concluded that TPS is effective in improving students reading comprehension scores.

On their own part, Karura et. Al., (2021) focused on the effect of Think-Pair-Share on students' achievement and motivation in Christian Religion Education (CRE) in Njoro-sub-country secondary schools in Nakuru country, Kenya. The research design was Solomon four group under quasi-experimental research. The population comprised of 14, 292 students out of which 184 students were randomly selected from four schools and used as sample of the study. TPS was used to teach the experimental group while the control groups were taught using the conventional method for four weeks. Two instruments were validated and used for data collection: CRE Assessment Test (CREAT) and Motivation Descriptive Questionnaire (MDQ). Pre-test and post-test were administered and data obtained were analysed using mean, percentages and standard deviation for descriptive statistics as well as ANOVA and T-test to test hypothesis at 0.05 level of significance. Findings revealed that TPS enhances achievement in CRE and gender does not affect achievement of the students. They concluded that TPS is highly effective in improving students' academic performance therefore teachers should utilise the strategy in teaching CRE.

In the light of the above discussion which shows the tremendous benefits of TPS to students in different areas and giving the educational needs of students in Gombe state, it is worthwhile to find out the effect of Think-pair-share (TPS) on the performance of secondary school students in reading comprehension in Gombe state, Nigeria.

Research Question

1. What is the mean difference in the performance of secondary school students taught reading comprehension using Think-pair-share method and students taught using lecture method?

Research Hypothesis

H01: There is no significant difference in the performance of secondary school students taught reading comprehension using think-pair-share strategy and students taught using lecture method in Gombe state secondary schools.

Methodology

This study adopted a quasi-experimental research design with pre-test post-test experimental and control group. The target population is all senior secondary school students in government owned secondary schools in Gombe metropolis, (EMIS, MOE Gombe 2020). Simple random sampling technique was used to select two intact classes from two schools which gave a sample of 91 students were used: 44 in the control group and 47 in the experimental group. One intact class served as experimental group while the other class in a different school served as the control group. A pre-test was administered prior to the treatment while a post-test was administered after the treatment. Reading comprehension passages were selected from the recommended English language textbook for senior secondary school 2. The experimental group were taught using the TPS strategy while the control group were taught the same passages using the lecture method. The reading comprehension test was validated by three English language teachers with a minimum of five years' experience in teaching English while test retest reliability index of 0.81 was obtained. Students were given comprehension questions in multiple choice format with seven questions and four options lettered A to D for each question. Each option was awarded one mark. Hence, the maximum obtainable score was 7 and the

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minimum was zero. Data collected were analysed using descriptive statistics and independent sample t-test. The analysis was done using the Statistical Package for the Social Sciences (SPSS) software version 20.

Results

Research Question 1
What is the mean difference in the performance of senior secondary school students taught reading comprehension using Think-pair-share method and students taught using lecture method?

Table 1: Results of mean and standard deviation of experimental and control group in reading comprehension test at pre test

Groups	N	Mean	STD. Deviation
Experimental	47	1.77	1.026
Control	44	1.84	.914

Result from table 1 showed that both experimental and control groups were homogenous as their mean score in the pre-test revealed a marginal difference of 0.07 only. This indicates that the performance of both groups is the same before the treatment.

Table 2: Results of mean and standard deviation of experimental and control group in reading comprehension test at Post test

Groups	N	Mean	S.D	$\bar{x}$ Dif
Experimental	47	3.53	1.080	1.76
Control	44	2.05	.914	0.21

Table 2 showed the experimental and control group mean performance after exposure to Think-pair-share (TPS) strategy and lecture method. The results showed that the experimental group had a score of 3.53 (SD=1.080), while the control group had 2.05 (SD= .914). With a mean difference of 1.76, this shows that the experimental group had some level of improvement as a result of exposure to TPS strategy. The standard deviation is indicative of wide variability between the scores of the groups.

Hypothesis Testing
H01: There is no significant difference in the performance of senior secondary school students taught reading comprehension using think-pair-share strategy and students taught using lecture method in Gombe state senior secondary schools.

Table 3: Independent Sample t-test Statistics of Mean difference between the Post-Test Performances of Experimental and Control Group on Reading Comprehension Test

Groups	N	$\bar{X}$	SD	Df	t-Cal	p-Value	Decision
Experimental	47	-1.766	1.108				
				89	-10.931	.000	Rejected
Control	44	-.205	1.153				

*** Significant at p< 0.05**

Result from table 3 presents the results of the independent sample t-test on whether there is a significant difference in the performance of senior secondary school students taught reading comprehension using TPS and those taught using lecture methods. The result showed that there was a significant difference in the mean scores between experimental group (M= -1.76, SD = 1.10) and control group (M = -.20, SD=1.15); and the t (89) = -10.93, p=0.000 < 0.05. Consequently, the null hypothesis which states that there is no significant difference in the performance score of experimental and control group is hereby rejected. Therefore, it is concluded that students who were taught reading comprehension using TPS strategy

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significantly performed better than those taught using lecture method.

Discussion of Results

The findings of this study revealed that the Think-Pair-Share strategy is a viable technique of improving the performance of senior secondary school students in reading comprehension. This could be seen in the mean gain score of 1.76 for the experimental group in their post test score after the Think-Pair-Share strategy was implemented. Also, the T-value of -10.931 with 0.000 pvalue indicates that the hypothesis which states that there is no significant difference in the mean score of experimental and control group in reading comprehension scores was rejected at 0.05 level of significance. Hence, this finding corroborates that of Fauziyati and Istiana (2013), Syafi (2018), and Agussatriana (2020) who all found out that the use of Think-Pair-Share strategy has resulted in an enhanced academic performance of students as compared to lecture method of teaching. The result indicated that the use of TPS motivated the senior secondary school students to improve their thinking skills and participation in class activities by means of sharing ideas with one another, gradually refining such ideas and finally sharing with the whole class. It gives opportunities to students who were mostly considered inactive in class to get involved in learning activities thereby improving their scores in reading comprehension.

Conclusion

It was surmised that Think-Pair-Share (TPS) is an effective strategy in improving senior secondary school students' active participation in reading comprehension as evidenced in the gain scores (post-test) of the experimental group. Findings from this study has reiterated that performance of secondary students in school can actually be enhanced in as much as the right teaching-learning technique are employed by teachers who are also dedicated to the process. Conclusively therefore, senior secondary school English language teachers should explore the advantages of Think-Pair-Share strategy in their quest to salvage and

improve the performance of their students in reading comprehension

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