# Effect of Student Teams-Achievement Divisions and Think-Pair-Share on Students' Interest in Reading Comprehension 

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#### Abstract

The study investigated the effect of two cooperative learning strategies (the student teamsachievement divisions and think-pair-share methods) on students' interest in reading comprehension. Seventy-eight senior secondary II students were randomly selected from three schools in Vandeikya Local Government Area, Benue State, Nigeria. A pretest-posttest quasi-experimental design was adopted. The Interest in Reading Inventory ( $R=0.09$ ) was the instrument used. Two hypotheses were tested at .05 levels of significance. Three intact classes were randomly assigned as Experimental Group 1, Experimental Group 2, and the control group. The data collected were analyzed using mean and standard deviation, and analysis of covariance was used to test the hypothesis. The results showed significant main effect of treatment on students' interest in reading comprehension, $F(1,51)=3.743, p<.05$. Students exposed to Student Teams-Achievement Divisions program performed better than those in the control group. Furthermore, Think-Pair-Share has significant effect on students' interest in reading comprehension, $F(1,51)=18.018, p<.05)$. Thus, cooperative learning has shown to be effective in improving students' interest in reading comprehension.


Keywords: cooperative learning, student teams-achievement divisions, think-pair-share, reading, interest, Nigeria

## Introduction

One of the very first instructions that children receive when entering school is the distinction of the sounds of the alphabet followed by the identification of the letters represented by each sound. These preliminary activities (beginning reading readiness) are very essential because they prepare and equip the children with the basic literacy tools required for formal education. Without this initial instruction, it will be absolutely impossible for learner to make progress in school. Language is essential for cognitive development (Vygotsky, 1978), and reading is one of the ways through which learners develop their language proficiency, especially when the language spoken in their homes is different from the one used in school.

The ability to read is central to the acquisition of knowledge. It facilitates the development of the skills of listening, speaking, and writing, all of which are essential for learning and succeeding in school. Students who can read will most likely be able to cope with the different school subjects. Conversely, those who are not able to read will most likely perform poorly in school because they will find learning very difficult.

Beyond formal education, the ability to read is a necessity for survival in everyday life. It helps one to remain an informed citizen; it is needed for success in the workplace and for social interaction and cohesion. It also enhances intellectual development, critical thinking ability, the spirit of inquiry, and creativity and helps one to confront and solve complex problems in life. Reading stands as one of the major tools for acquiring nearly all the 21st-century skills students need (as highlighted by Battelle for Kids Partnership for 21st Century Learning, 2006). Although the group had the U.S. workforce in mind, the skills apply to students in different parts of the world, Nigeria included.

Acquiring learning and innovation skills, for example, is dependent on the ability to read. It was not out of place that English, reading, and language arts were recognized by the Partnership for 21st Century Learning as part of the core subjects that students must learn to be ready for the workforce. The other areas, such as arts, mathematics, economics, science, geography, history, government, and civics (Battelle for Kids Partnership for 21st Century Learning, 2006), are only open to students who can read and write. The inability to read would mean that a student would be deprived of the development of all these essential skills and, invariably, would find it difficult to cope in society. Reading controls almost every learning activity in school and remains significant during work.

In Nigeria, however, more and more students are finding it difficult to read. An alarmingly high percentage of learners in Nigerian public schools are unable to read, and some who can read are unable to use the skill as a tool for learning (Muodumogu, 2012). This means that they have low reading proficiency. It has also been observed that helping learners become independent readers who love to read is one of the major problems confronting the school system in Nigeria (Oyetunde \& Muodumogu, 2009). Given this background, it is therefore not surprising that many of these students, especially those in the numerous public schools, are faced with constant academic failures. Without the ability to read, students will not only fail but will be unable to cope with the demands of literacy. School failure has other negative consequences such as dropping out of school and engaging in antisocial behaviors.

However, students' failures have a strong link with their poor knowledge of English language, which is not only a school subject but also the language of instruction. In Nigeria, reading lessons are incorporated into language lessons (English language mostly, and in isolated cases, the indigenous languages) and are mostly taught by the language teachers. Besides, reading specialists are hardly available in Nigerian public primary and secondary schools. This means that students who find the English language difficult will most likely find reading a difficult task.

The failure rate of students in the English language, especially on their external exams such as the Senior Secondary School Certificate Examination, has been ascribed to poor language performance, which has its root in poor reading culture. Students were said to have manifested poor knowledge or command of the English language, as evident in their poor expression of ideas, poor grammatical expression, and poor mechanical accuracy. They were unable to define terms, follow written instructions, or understand questions that demand a high level of thinking, and they gave shallow answers (National Business and Technical Examinations Board, 2017; West African Examination Council [WAEC], 2018). Most factors enumerated here are linked to students' inability to read. Thus, among the recommendations of the National Business and Technical Examinations Board and WAEC were that students should develop the habit of reading novels, magazines, and journals and use dictionaries to improve their vocabulary development.

Because reading holds the key to educational attainment and success in school, teachers need to find ways to make its teaching insightful, interesting, and productive. If this is done, students will most likely develop proficiency and interest in reading on their own. Interest is an important factor in teaching and learning. Rotgans and Schmidt (2018) considered interest as one of the qualities that students bring in their learning tasks. Interest in learning or in school subjects also relates to students' academic achievement (Kpolovie, Okoto, \& Joe, 2014; von Maurice, Dörfler \& Artelt, 2014). The more interested students are in a subject, the more likely they will spend time in learning it. Therefore, if students find reading interesting rather than boring, they will spend more time reading. However, because reading is not an easy task, it is the duty of the teachers to find ways of teaching it to boost students' interest. This can be achieved if they diversify their methods of teaching reading comprehension. Rotgans and Schmidt (2018) believed that when students lack interest in a particular school subject, the teacher can use instructional intervention to offset their lack of individual interest and, consequently, rouse their situational interest. Citing other authors
such as Schraw, Flowerday, and Lehman (2001), the authors define situational interest as the motivational state students experience during engagement with a particular task. On the contrary, inadequate and inappropriate instructional methods and materials could reduce students' interest in learning and also worsen their attitude to school (Kpolovie et al., 2014).

The traditional teaching method, which remains a common teaching strategy among Nigerian teachers, has not been effective in teaching reading comprehension. This method of teaching, according to Muodumogu (2012) de-emphasizes the concept of reading as an interactive, purposeful, and constructive process of meaning-making. If students are to be helped to develop an enduring interest in reading, there is a need to find alternative ways to enhance teachers' pedagogical practices. Thus, Enighe and Afangideh (2018) recommended that teachers should diversify their instructional strategies when teaching reading to help learners develop reading proficiency and that they need to move from the conventional method of teaching reading.

Cooperative learning is a teaching technique that has proved effective in teaching different school subjects by many teachers. Cooperative learning is rooted in students collaborating to maximize learning. Morgan (2012) believed that cooperative learning helps students to think, speak, and write more clearly; listen more attentively and respectfully to others' ideas; take turns in conversation; use text to support their ideas; and become more immersed in working together. Two common cooperative learning strategies that have been successfully used to teach different school subjects to learners at different levels of education and of varying academic abilities are student teamsachievement divisions (STAD) and think-pair-share (TPS; Sumekto, 2018; Yaduvanshi \& Singh, 2019; Q. Yusuf, Jusoh \& Yusuf, 2019).

Both STAD and TPS are activity based, as students are tasked to achieve different learning objectives that are only possible through their individual and collaborative efforts. When students are active, their interest tends to be sustained. Group discussion, which is central to both strategies, can equally aid in sustaining students' interest. Through discussion, students are able to exchange ideas, look at issues from different perspectives, widen the scope of their knowledge, and learn different ways of solving problems. Thus, teaching reading comprehension through STAD and TPS strategies could help students to arrive at a deeper level of comprehension and, in turn, make reading more interesting, engaging, and productive. Learners who are less proficient in reading could be motivated through peer tutoring and group discussion. Given the numerous benefits of cooperative learning, this study investigated whether teaching reading comprehension with STAD and TPS strategies could increase students' interest in reading comprehension in a selected secondary school in Vandeikya Local Government Area, Benue State, Nigeria.

## Background and Literature Review

Reading is so central to education that students who are not able to read encounter problems in their overall achievement, including in other subjects. Reading provides students with an unrestricted opportunity for information, widens their intellectual horizon, improves general mental development, and is a catalyst for intellectual growth (Sama \& Hindatu, 2017). However, there is research evidence that many Nigerian students do not have much interest in reading, preferring more enjoyable activities such as watching television and engaging in social media platforms (Anyaegbu, Aghauche \& Nnamani, 2016; Babarinde, Babarinde \& Dike, 2017). For many students, reading is a boring and cumbersome activity. Some lack interest in reading because it takes time and concentration (Oyewusi, 2008). Studying for exams remains a major (if not the only) reason many students read (Anyaegbu et al., 2016; A. R. Yusuf \& Awoyemi, 2018). However, exam-driven reading cannot lead to the attainment of the other essential benefits of reading, and students who wait until exam time to read will not be able to maximize their learning because knowledge acquisition is a cumulative venture. Chukwudi-Ofoedu, Amala, and Igbokwe (2011) claimed that lately, even reading
to excel on exams is becoming unpopular among students. This is substantiated by the unending cases of exam malpractices among secondary school students, especially in their external exams, which has become worrisome.

In the yearly tests organized by the examining bodies such as WAEC and the National Examination Council (NECO), there are few years from which a significant number of results were not withheld due to exam-related offenses. Sometimes the credibility of the results becomes questionable by the general public. For instance, student results statistics released by NECO (2015) show that in 2011, 51,312 (i.e., $4.42 \%$ ) English language exam scores were cancelled. Within 5 years (2011-2015), a total of 78,178 scores (representing $7.03 \%$ ) were cancelled. English language scores are not the only ones cancelled-scores for other school subjects are, too. A 5-year summary of seven arts subjects (English, Christian religious studies, history, Islamic studies, government, literature-in-English, and commerce) lists 206,393 cancelled results. The NECO registrar reported that 50,586 candidates who sat for the Senior Secondary Certificate Examination in 2017 were involved in exam malpractices and that 276 schools in 34 states were involved in mass cheating (NECO, 2015). In 2018, a total of 20,181 candidates equally cheated in the exam-3,269 in mathematics and 2,177 in English language (Fapohunda, 2018; Inegbenehi, 2018). To address the issue of exam malpractices, WAEC hosted the International Summit on Examination Malpractice on October 19-20, 2017, in Lagos, Nigeria. The participants noted that exam malpractice was an offshoot of many negative factors, including students' laziness, poor reading habits, and misuse of advancements in technology. WAEC (2017) highlighted that "combating exam malpractice should be considered a national and regional concern and treated as an emergency, given its wider international implications on quality assurance" (p.3). To curtail this negative practice, the body expressed the need to enhance teachers' pedagogical practices through retraining and capacity building for deep learning to make learning more interesting and meaningful and to awaken students' innate abilities.

The fact that there are so many candidates involved in exam malpractices in Nigeria is a sign that students are not able to read meaningfully to prepare for and take their exams. Thus, the desire to pass at all cost leads to engagement in unwholesome practices. Sometimes, even teachers and school heads who are supposed to supervise the exams and ensure their credibility have been accused of aiding students in cheating and also helping to leak the questions ahead of test time. In his opening address of the 67 th annual council meeting of WAEC, the WAEC registrar, Dr. Iyi Uwadiae, stated that exam malpractice is a scourge in the education sector of WAEC member nations. The malaise, he added, pervades the school system at all levels and poses "a challenge to the propensity for academic attainments and a threat to the reliability of assessment processes" (WAEC, 2019, p. 3).

If students are able to read, they will certainly maximize their learning and be confident when they have to perform academic tasks, especially during their exams. It is, therefore, very important that English language teachers prioritize teaching reading to equip students with the skills they need for success in school. Korb (2011) said that an important goal in literacy instruction is to help learners develop a lasting interest in reading. This is, however, not a simple task. Fisk (2013) argued that unless you spark students' interest in reading, they will continue to avoid it and opt for other, more pleasant activities. Osokoya (2011) also opined that no matter the ability of the teacher and the techniques he or she uses to pass on knowledge or skills, learners' interests must be considered if learning is to actually take place.

Interest is, therefore, an important trait that teachers need to help students develop to enjoy the reading lessons. However, teachers must bear in mind that achieving this can be a slow process that demands patience and consistency. Elliott, Kratochwill, Cook, and Travers (2000) explained that holding students' interest is a long-term, developmental process and that the extent to which students are interested in an area of knowledge could predict how much attention they will give to it and how well they will process, comprehend, and remember it. If students are interested in reading,
they will better process and comprehend what they read. They will also be more eager to engage in reading out of their own volition.

However, in the present globalized world laden with social media platforms that are so enticing, it is not surprising that students are distracted from reading and sustaining their interests in reading is not so easy. This problem is not specific to Nigeria but to young people in different parts of the world. Prensky (2001) pointed out that today's average college graduates may have spent fewer than 5,000 hr of their lives reading but up to twice that playing video games and perhaps up to $20,000 \mathrm{hr}$ watching television. Teachers, therefore, need to use all the available means if they are to succeed in winning learners' interest in reading. If students are interested in reading, it will be easier to teach them every other school subject. If the reverse is the case, teachers may find it very hard to teach.

The way reading lessons are handled by teachers can greatly facilitate learners' interest in the lesson and in reading as a whole. Reading comprehension may pose a problem to students because reading exercises could come from any subject area. Thus, teachers need to use different teaching techniques, most especially the ones that would make the lessons as participatory as possible. Betts (1992) argued that to meet today's education goals, there must be a system change that would require a shift from dictatorial to participative organizational styles, from instruction to learning, and from the teacher as the sole source of information to the availability of many information resources accessible to students, of which the teacher is only one. Such a system shift would involve providing varied learning structures including self-directed, one-on-one, small groups, lecture, field study, apprenticeships, mentoring, and collaborative work in intact teams. It is also a call to shift from the traditional way of teaching and learning whereby the teacher assumes the center stage to a method that is both collaborative and student centered. The traditional method of teaching has clearly not been so effective in teaching reading comprehension in Nigerian secondary schools. Students will not take interest in reading unless they understand what they read. The traditional method does not emphasize group or activity-based reading in the classroom. This is why alternative methods of teaching reading comprehension are needed in the Nigerian classrooms.

Applying the propositions of Betts (1992) to the teaching of reading comprehension would require looking at the entire process as a social and collaborative activity. Collaborative activities can help students to learn from one another, thereby shaping their ideas and learning different reading strategies from their peers. This can equally enhance critical thinking especially when they connect the reading texts with their previous experiences. Group work also enables students to give and receive immediate feedback from one another and from the teacher. All these could lead to sustained interest in reading.

Some of the suggestions of Betts (1992) are accommodated in cooperative learning, which has become a popular teaching technique among educators. Earlier studies have shown that students who are exposed to cooperative tasks may develop greater comprehension and that the method could be used to sustain students' interest in learning (Adb-Rahim, Jusoff, \& Roslan, 2011). Cooperative learning is one teaching strategy that emphasizes constant interaction among students.

In a cooperative classroom, learners play active roles as they struggle to improve their learning. Every member is expected to contribute to the learning process. Slavin (2010) stressed that group goals and individual accountability are the two conditions that determine the effectiveness of cooperative learning. There are many cooperative learning strategies, including the jigsaw method, STAD, TPS, the student team learning method, the teams-games-tournament strategy, Cooperative Integrated Reading and Composition program, the learning together technique, and the round robin technique (Mandal, 2009; Slavin, 1991).

STAD and TPS were selected for this study because they have been shown to be simple to use. Nuha (2011) considered STAD to be an appropriate cooperative learning strategy for teaching subjects with
well-defined objectives such as language usage and mechanics, geography, mathematics, and science. STAD involves assigning students to four-member learning teams that are mixed in performance level, gender, and ethnicity (Slavin, 1996). TPS has three stages derived from its name (i.e., think, pair, and share). It was envisaged that the mutual interactions that STAD and TPS enable could bring enrichment in a reading class. STAD takes advantage of the heterogeneity in the classrooms by encouraging students to learn from one another, especially from their more knowledgeable peers (Jalilifar, 2010). Through the three stages of TPS, students are able to discuss the questions generated by the teacher and respond to them in their groups. As they share their results with the rest of the class, deeper comprehension of texts can take place. STAD and TPS activities also encourage both peer and teacher feedback.

Cooperative activities offer learners multiple opportunities to exchange their ideas with one another. Personal and group efforts to learn and contribute to the achievement of the group learning goals could lead to sustained interest. TPS for example, enables students to be more critical as they go through its three stages. By pairing and sharing with their peers, they gain wider experiences and are able to see the meaning of the text from different perspectives. The two strategies (TPS and STAD) could enable learners to tap from one another's wealth of experiences and use same to aid comprehension. When students are encouraged to discuss what they read within their groups, reading may become not only enjoyable but also richer in meaning.

One of the instruments for investigating students' interest in reading is the Interest in Reading Inventory (IRI). IRI is used to ascertain whether students like to read or not. Knowing the extent to which students are interested in reading could give the teacher direction on where to begin the reading lessons, to anticipate students' learning difficulties and plan how to address them so that learning can take place.

## Theoretical Framework

This study reinforces Bandura's (1977) social learning theory, in which Bandura argued that behavior is learned from the environment through observation, imitation, and modeling. Humans can actively process the information they receive, and learning as a cognitive process takes place in a social context. Through observation, children can pattern their behaviors after those of the people around them. The theory equally emphasized the importance of reinforcement in shaping children's behavior.

Reinforcement is a term used by behaviorist-psychologists to describe a stimulus that could be presented or withdrawn to increase or decrease the probability of performing certain behaviors. Reinforcement can be positive or negative, internal (intrinsic) or external (extrinsic; McLeod, 2016). A child is more likely to repeat a behavior that attracts positive reinforcement. Moreover, external reinforcement will have more impact on the child if it meets his or her needs. However, an individual may respond to stimulus only if the person sees its usefulness and impact.

Social learning theory is relevant in understanding both cooperative learning and reading comprehension because reading involves a cognitive process of making meaning. Although the reading teacher serves as a facilitator in a cooperative learning classroom, he or she is also expected to be a model for the children. Because heterogeneity is encourage when forming cooperative learning groups, students are able to learn different strategies from their peers.

Moreover, cooperative learning, especially STAD and TPS, encourage intrinsic and extrinsic reinforcements. Each student needs the former to be able to commit to the group learning goals. The desire to succeed could also lead to intrinsic reinforcements. Additionally, both techniques equally encourage recognizing the best group based on their improvements at the end of the lessons. Such
recognitions are positive (extrinsic) reinforcements and could help to increase students' interest. The following hypotheses were tested at the .05 level of significance:

Hypothesis 1: The STAD cooperative learning strategy has no significant effect on students’ interest in reading comprehension.

Hypothesis 2: The TPS cooperative learning strategy has no significant effect on students' interest in reading comprehension.

## Method

This study used a pretest-posttest quasi-experimental design. Three intact classes (senior secondary II) were randomly selected from three secondary schools and divided into one of two experimental groups (Experimental Group 1 used STAD; Experimental Group 2 used TPS) or the control group (which used the traditional method of teaching that was already in place). Seventy-eight students ( $n$ $=43$ male, $n=35$ female) formed the sample size.

IRI was used for data gathering, and the reliability of the instrument was obtained ( $R=0.89$ ). The 30 -item IRI was designed following a 4 -point Likert scale ( $4=$ strongly agree, $3=$ agree, $2=$ disagree, $1=$ strongly disagree). Some of the items were adapted from Erschabek (2010) and others were constructed by the researcher. The researcher equally prepared 12 lesson plans to guide the teachers to teach reading comprehension for 4 weeks (four plans using STAD, four plans using TPS, and four control plans).

The IRI was administered on the experimental and control groups on the first week before the commencement of their lessons. This was followed by the weekly reading comprehension lessons. Each group received a weekly 45 -min lesson following the criteria set on the lessons plans. At the end of the 4 weeks, the IRI was administered to students for the second time. Data collected were analyzed using SPSS. Analysis of covariance was used to test the hypotheses at . 05 levels of significance; mean and standard deviation were used to answer the research questions.

Research Question 1: What effect will the STAD cooperative learning strategy have on students' interest in reading comprehension?

Research Question 2: To what extent would TPS cooperative learning strategy affect students' interest in reading comprehension?

## Results

## Hypothesis 1

Table 1 indicates that the mean interest scores at pretest were $M_{\text {ExperimentalGroup1 }}=20.91(S D=7.26)$ and $M_{\text {ControlGroup }}=17.92(S D=5.56)$; at posttest, they were $M_{\text {ExperimentalGroup } 1}=39.61(S D=5.47)$ and $M_{\text {ControlGroup }}=33.69(S D=6.68)$. The mean gain was $M_{\text {ExperimentalGroup } 1}=18.7(S D=-1.79)$ and $M_{\text {ControlGroup }}=15.77(S D=1.12)$. The mean difference of the two groups is 5.92 in favor of the experimental group.

Table 1. Mean and Standard Deviation of Interest in Reading Comprehension of Students Exposed to the Student Teams-Achievement Divisions (Experimental Group 1) Cooperative Learning Strategy and Those Taught Using the Traditional Teaching Strategy (Control Group)

|  |  | Pretest |  | Posttest |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Group | $\boldsymbol{N}$ | $\boldsymbol{M}$ | $\boldsymbol{S D}$ | $\boldsymbol{M}$ | $\boldsymbol{S D}$ | $\boldsymbol{M}$ Gain |
| Experimental Group 1 | 24 | 20.91 | 7.26 | 39.61 | 5.47 | 18.7 |
| Control group | 30 | 17.92 | 5.56 | 33.69 | 6.68 | 15.77 |
| Mean difference |  |  |  | 5.92 |  |  |

Further statistical analysis of the results (see Table 2) indicates that $F(1,51)=13.743, p=0.001$. Because the $p$ value (.001) is less than the alpha level ( 0.05 ), the null hypothesis is not accepted. This means that the STAD cooperative learning strategy has significant effect on students' interest in reading comprehension.

Table 2. Analysis of Covariance of Mean Interest Scores of Students Exposed to the Student TeamsAchievement Divisions (STAD) Cooperative Learning Strategy and Those Exposed to the Traditional Teaching Strategy

| Source | Type III Sum <br> of Squares | $\boldsymbol{d} \boldsymbol{f}$ | Mean <br> Square | $\boldsymbol{F}$ | $\boldsymbol{p}$ |
| :--- | :---: | ---: | ---: | ---: | ---: |
| Corrected model | $247.144^{\text {a }}$ | 2 | 123.572 | 16.340 | .000 |
| Intercept | 310.860 | 1 | 310.860 | 41.105 | .000 |
| Pre-STAD interest | 99.736 | 1 | 99.736 | 13.188 | .001 |
| Group | 103.935 | 1 | 103.935 | 13.743 | .001 |
| Error | 385.689 | 51 | 7.563 |  |  |
| Total | 9681.000 | 54 |  |  |  |
| Corrected total | 632.833 | 53 |  |  |  |
| ${ }^{\text {a }} R^{2}=.391$ (adjusted $\left.R^{2}=.367\right)$ |  |  |  |  |  |

## Hypothesis 2

Table 3 shows that the mean interest scores at pretest were $M_{\text {ExperimentalGroup2 }}=2.18(S D=0.44)$ and $M_{\text {ControlGroup }}=2.27(S D=0.40)$; at posttest, they were $M_{\text {ExperimentalGroup } 2}=7.30(S D=3.25)$ and $M_{\text {ControlGroup }}=5.17(S D=2.12)$. The mean gain was $M_{\text {ExperimentalGroup2 }}=5.12(S D=2.81)$ and $M_{\text {ControlGroup }}=2.9(S D=1.72)$. The mean difference between the two groups is 2.13 in favor of the experimental group.

Table 3. Mean and Standard Deviation of Interest in Reading Comprehension of Students Exposed to the Think-Pair-Share (Experimental Group 2) Cooperative Learning Strategy and Those Taught Using the Traditional Teaching Strategy (Control Group)

|  |  | Preinterest |  | Postinterest |  |  |
| :--- | :--- | :--- | :---: | :---: | :---: | :---: |
| Group | $\mathbf{N}$ | $\boldsymbol{M}$ | $\boldsymbol{S D}$ | $\boldsymbol{M}$ | $\boldsymbol{S D}$ | $\boldsymbol{M}$ Gain |
| Experimental Group 2 | 24 | 2.18 | .44 | 7.30 | 3.25 | 5.12 |
| Control group | 30 | 2.27 | 0.40 | 5.17 | 2.12 | 2.9 |
| Mean difference |  |  |  | 2.13 |  |  |

Table 4 reveals that $F(1,51)=18.018 ; p=.000$. Because the $p$ value (. 000 ) is less than the alpha level (0.05), the null hypothesis is not accepted. Thus, the TPS cooperative learning strategy has significant effect on students' interest in reading.

Table 4. Analysis of Covariance of Mean Interest Scores of Students Exposed to the Think-PairShare (TPS) Cooperative Learning Strategy and Those Exposed to the Traditional Teaching Strategy

|  | Type III <br> Sum of <br> Squares | $\boldsymbol{d} \boldsymbol{f}$ | Mean <br> Square | $\boldsymbol{F}$ | $\boldsymbol{p}$ |
| :--- | :---: | :---: | ---: | ---: | ---: |
| Source | $9.369^{\mathrm{a}}$ | 2 | 4.685 | 64.600 | .000 |
| Corrected model | .069 | 1 | .069 | .951 | .334 |
| Intercept | 7.344 | 1 | 7.344 | 101.269 | .000 |
| Pre-TPS interest | 1.307 | 1 | 1.307 | 18.018 | .000 |
| Group | 3.698 | 51 | .073 |  |  |
| Error | 351.542 | 54 |  |  |  |
| Total | 13.068 | 53 |  |  |  |
| Corrected total | $R^{2}=.717$ (adjusted $\left.R^{2}=.706\right)$ |  |  |  |  |

${ }^{\text {a }} R^{2}=.717$ (adjusted $R^{2}=.706$ )

## Discussion

The results revealed that both the STAD and TPS cooperative learning strategies have significant effects on students' interest in reading comprehension. It is evident that students exposed to STAD and TPS developed higher interest in reading. This finding supports the view of Korb (2011) that if students work cooperatively and engage in group discussion, they will be deeply involved in the lesson and their interest could be sustained. Similarly, Elliott et al. (2000) explained that to sustain students' interest, teachers should allow them to participate in meaningful projects with connections to the world outside of the classroom. The different stages of STAD and TPS paved the way for students to be actively involved during the learning process. As they gave and received peer feedback, wrote their insights, and reported to the entire class, they were able to keep to their assigned tasks. This helped to sustain their interest throughout the lesson periods. However, in the traditional teaching method, students worked individually, especially when it was time to answer the comprehension questions. Also, their teacher did almost all of the talking and students were sometimes unable to make meaningful contributions during the learning process.

Group discussion is an essential aspect of both STAD and TPS strategies because students are obliged to pair and then share with their peers. The positive effect of exposing students to cooperative learning is an indication that the more students talk about what they read, the more they are able to make connections and develop deeper insights. Talking about what they read gave room for more questions and answers, inputs, and clarifications by team members as well as the teacher. It is possible that the more questions students were able to generate and respond to, the more their insights on the text widened. Interest and comprehension go hand in hand: Students who understand what they read will most likely be more interested in reading than those who are not able to comprehend the reading task.

Additionally, shy students who ordinarily would not want to share their insight with others or even ask questions in class could found their small learning teams a friendlier environment with opportunities to do so. This is one of the gains of using cooperative learning, which thrives on individual accountability, an element that mandates each team member to contribute to the group success. Also, STAD and TPS enable students to be in charge of their own learning. This is helpful to both students and their teachers. It could give students the confidence that each of them has something to contribute to the learning process and that the teacher is not the centre of learning. In other words, cooperative learning can enhance learner autonomy. To the teacher, it could help her or him to trust that students can actually teach themselves and that she or he must not always direct
learning. Taking advantage of this, teachers working in large classes might find it easier to teach reading comprehension by dividing students into manageable learning groups.

Issa, Aliyu, Akangbe, and Adedeji (2012) discovered that although developing interest in reading is a necessity for attaining academic success, a majority of students do not enjoy reading and, in fact, have very low interest in it. They concluded that teachers must find ways to increase students' interest in reading. The positive effects of STAD and TPS cooperative learning strategies as shown in this study indicate that if teachers adopt these strategies in their classrooms, it could boost students' interest.

There is also a positive connection between the result and the views of Elliott et al. (2000), who stressed that to improve students' interest in learning, teachers should allow them to evaluate their own work. Similarly, Osokoya (2011) explained that giving immediate feedback helps to sustain students' interest. TPS and STAD strategies enabled the students to give and receive immediate feedback among themselves and from their teachers. This might have helped them to track their group and individual progress and make the necessary adjustments so as to enhance their learning. It is, therefore, not surprising that students who were exposed to the two strategies recorded higher mean interest scores than those who were exposed to the traditional teaching strategy.

## Conclusion and Recommendation

This study has shown that using cooperative learning to teach could help to sustain students' interest in reading. Teachers should therefore encourage collaborative activities among students during reading comprehension lessons. STAD and TPS are activity based and could reduce boredom during lessons because learners are given different tasks to perform within a short period. Those activities make them task themselves and report to their groups or to the whole class.

However, while cooperative activities could enhance learning, teachers must remember that cooperative learning does not automatically guarantee learning success. Thus, they must ensure that they master the elements of cooperative learning and its pros and cons so that they can use it appropriately and then derive its many potential benefits. Teachers should ensure that students understand what exactly they are expected to do at any given time. Also, they have to monitor the group activities so that students do not spend the time arguing or engaging in other activities outside the learning scope. Only by doing the necessary things can the gains of STAD and TPS be achieved. Because reading comprehension is a challenge to many students, it is recommended that teachers assist them to read meaningfully by using effective teaching strategies such as STAD and TPS. If students are able to deepen their understanding of what they read, it will be easier for them to develop greater interest in reading as a whole.

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[Appendix follows]

## Appendix Interest in Reading Inventory (IRI)

ID NUMBER: $\qquad$ Male $\qquad$ Female: $\qquad$ Date:
Dear student, this questionnaire is intended to gather information for a research. Please feel free to give honest and correct information. Any information you provide will be treated confidentially.

| Statement | Strongly Agree | Agree | Disagree | Strongly Disagree |
| :---: | :---: | :---: | :---: | :---: |
| 1.I enjoy reading. |  |  |  |  |
| 2. Even though I can read, I find it so boring. |  |  |  |  |
| 3. Reading is very important to me. |  |  |  |  |
| 4. The major reason why I read is to pass my examination. |  |  |  |  |
| 5. Watching television interests me more than reading. |  |  |  |  |
| 6. Unless I am preparing for an examination or given an assignment, I do not really bother so much to read. |  |  |  |  |
| 7.I do not like reading other books apart from my textbooks and notebooks. |  |  |  |  |
| 8. When I was a child, I wish someone read aloud to me. |  |  |  |  |
| 9.I wonder how some people can read for a long time without feeling bored. |  |  |  |  |
| 10. I like borrowing books from the library. |  |  |  |  |
| 11. One should not spend money buying books that are not recommended by teachers. |  |  |  |  |
| 12. If there is a reading club in my school, I will like to join. |  |  |  |  |
| 13. If someone wants to give me a gift, I will prefer a book to some other items. |  |  |  |  |
| 14. If I read more books, I will improve in my academic performance. |  |  |  |  |
| 15. I think the library is an interesting place to spend time reading. |  |  |  |  |
| 16. If I am reading, I cannot afford to go out for sports or recreation until I read to my satisfaction. |  |  |  |  |
| 17. When I am with my friends, we talk about what we read recently. |  |  |  |  |
| 18. I wish I could teach my siblings how to read. |  |  |  |  |
| 19. I do not have much interest in reading because nobody motivates me to read. |  |  |  |  |
| 20. I develop interest in reading because my teachers motivate me to read. |  |  |  |  |
| 21. Reading does not really matter to me because I have other things to keep me busy and happy. |  |  |  |  |
| 22. During the holidays, I will spend more time reading novels than going out with friends. |  |  |  |  |
| 23. When someone gives me a book for a present, I feel very happy. |  |  |  |  |
| 24. Reading is my best hobby. |  |  |  |  |
| 25. I prefer playing sports and computer games to reading. |  |  |  |  |
| 26. I enjoy reading at night than making free night calls. |  |  |  |  |
| 27. I think the library is a boring place to spend time. |  |  |  |  |
| 28. I will definitely continue to read even when I finish schooling. |  |  |  |  |
| 29. Most times, I read only the books that my teachers ask me to read. |  |  |  |  |
| 30. Whenever I see someone holding a book, I feel like collecting it to read. |  |  |  |  |

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