



## IMPACT OF STUDENT TEAMS ACHIEVEMENT DIVISIONS STRATEGY ON SENIOR SCHOOL STUDENTS' INTEREST AND ACHIEVEMENT IN READING COMPREHENSION IN MAKURDI AREA OF BENUE STATE

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### **Abstract**

*The study investigated the impact of Student Teams Achievement Divisions (STAD) strategy on senior school students' interest and achievement in reading comprehension in Makurdi area of Benue State. The design for the study was Quasi-experimental pre-test, post-test design. Four research objectives are developed; while four research questions and four hypotheses are tested. The research questions are answered using mean and standard deviation while the null hypotheses are tested using ANCOVA at 0.05 level of significance. Population of the study is 15,200 male and female students in the 2021/2022 academic session from 311 public secondary schools in Makurdi, Benue state – Nigeria. Multiple stage sampling technique is used; the sample size is 132 males and female senior secondary II students from 4 senior secondary schools in Makurdi local government area of Benue state – Nigeria. The findings show STAD strategy has significant effect on students' mean interest ratings in reading comprehension ( $f = 7.07$ ;  $p = 0.00 < 0.05$ ). STAD strategy has significant effect on students reading comprehension achievement ( $f = 19.64$ ;  $p = 0.00 < 0.05$ ). There is no significant effect in male and female students' mean interest ratings taught reading comprehension using STAD strategy ( $f = 3.40$ ;  $p = -06 > 0.05$ ). And there is no significant effect in male and female students' reading comprehension achievement scores taught using STAD strategy ( $f = 0.01$ ;  $p = 0.89 > 0.05$ ). It is concluded that STAD strategy enhances students' interest and achievement in reading comprehension. And also addresses gender differences among learners. The researchers recommend that teachers should use STAD strategy, stakeholders in education on their part are encouraged to promote the use of STAD strategy at all levels of education and regularly organise symposium, seminars, workshops and refresher trainings to keep teachers abreast of effective teaching methods/strategies of teaching.*

**KEYWORDS:** Achievement, Comprehension, Reading, Interest, STAD

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## Introduction

Teaching reading comprehension, one of the four essential language skills (including reading, writing, speaking, and listening), necessitates the implementation of various pedagogical strategies. While some English language instructors occasionally utilize lecture-based or teacher-centered methods for teaching reading comprehension, others adopt contemporary, learner-centered approaches such as the communicative approach and cooperative learning strategies. The instruction of language is inherently multifaceted, requiring a diverse array of methodologies to effectively address different learning needs (Englishclub, 2024; Simon & Simon, 2023; Agustini, Marshaemi, & Suarnajaya, 2013).

Reading comprehension is a complex and multifaceted process, in which a whole range of cognitive and linguistic operations are at play (Mlakar, 2020; Willingham, 2017). There are several definitions of reading comprehension, but the most essential reading purpose is to extract meaning from printed text. Reading for general comprehension is the ability to process text, understand its meaning and interpret it appropriately. Broadly construed, it encapsulates the cognitive capacity to discern latent significances and conceptual underpinnings across diverse textual forms (Amadi, 2018).

Reading constitutes a receptive linguistic activity, involving the recognition, interpretation, and assimilation of written content with precision and efficacy. Its significance permeates across various professional domains, as noted by Eastern Washington University, (2022). Pilongo, Miolo, Sambouw and Luwiti (20023 underscore numerous benefits attributed to reading, including the expansion of vocabulary, enhancement of cognitive aptitude, and stimulation of imaginative faculties. To excel in this endeavor, students must cultivate a genuine inclination towards reading and engage consistently with intellectually stimulating material.

Reading comprehension stands as a critical component within the educational framework, bearing immense significance for both instructors and learners alike. However, its efficacy is often impeded by a myriad of challenges. Researchers have identified several factors hindering reading

comprehension, including the methodologies employed, complexity of materials, reader responses, background knowledge, and levels of motivation among learners (Agbo, Kadirin, & Ekwueme, 2019). Despite the recognition of these obstacles, the issue of poor performance in reading comprehension persists, particularly evident in the context of second language (L2) instruction where limited success has been achieved (Agbo et al., 2019). Such impediments not only hinder academic progress but also underscore the need for thorough investigation.

One of the objectives for learning English language at senior secondary school (SSS) level of education as contained in the English language SSS curriculum, is to develop students' reading comprehension skills (NERDC, 2009). Yet, it reveals that students' reading comprehension abilities at the senior secondary school level still have much to be desired (Auta, Ibrahim & Ayeace, 2023).

The Senior Secondary Certificate Examination (SSCE) English Language Syllabus revealed the WAEC and NECO objectives for setting Reading Comprehension questions. According to the objectives as stated by Auta, Ibrahim and Ayeace, (2023), it is expected that after six years in the secondary school, candidates should be able to do the following:

- (i) Find appropriate equivalents for selected words and phrases
- (ii) Understand the factual content of a passage
- (iii) Make inferences from the content of the passages
- (iv) Respond to uses of English expressions to reveal, reflect sentiments, emotions and attitudes
- (v) Identify and label basic grammatical structures, words, phrases or clauses, and explain their functions as they appear in the context
- (vi) Identify and explain basic literary terms and expressions
- (vii) Recast phrases or sentences into grammatical alternatives.

Also, success in all academic subjects at senior secondary school level depends largely on how well students can read and understand in English. The inability of students to read and comprehend in English is believed to have

contributed to high rate of dropouts. The interaction between teachers and students during reading comprehension lessons in our senior secondary schools have more to be desired. Students are asked to read comprehension passages and answer questions provided at the end of the passages. Yet, there seem to be no improvement in performance at the internal and external examinations in our schools. These problems cannot be divorced from the choice of language teaching methods by language teachers in teaching reading comprehension at senior secondary schools. This paper therefore, set to explore the impact of STAD strategy and how it enhances reading comprehension interest and achievement among senior secondary school students in Makurdi, Benue -Nigeria.

One approach to addressing these challenges is through the implementation of instructional strategies such as Student-Teams Achievement Divisions (STAD). Developed by Robert Slavin and colleagues, STAD is a cooperative learning strategy wherein heterogeneous groups collaborate to achieve common learning objectives (Slavin, 1995). Utilizing a four-step cycle encompassing teaching, team study, testing, and recognition, STAD has shown promising effects on reading comprehension (Husin & Nina, 2018). Additionally, research by Glamo-Narzoles (2015) highlights its positive influence on students' attitudes towards English and academic performance. Such findings underscore the potential of cooperative learning strategies like STAD in addressing the challenges associated with reading comprehension instruction.

Reading comprehension, a cognitive process involving the interpretation and construction of meaning from textual symbols, plays a fundamental role in language acquisition and communication (Isa, 2019). It necessitates continuous practice and development, requiring individuals to engage actively with texts to derive meaning (Rutzer, 2020). Likewise, interest emerges as a crucial determinant of academic achievement, influencing learners' attention, goals, and learning outcomes (Subramanian, 2009). Whether intrinsic or situational; interest serves as a catalyst for engagement and learning, impacting students' performance in reading comprehension (Kahu & Nelson, 2017; Araromi

& Olatubosom, 2018). Despite its significance, the interaction between interest and reading comprehension warrants further investigation to elucidate its implications for instructional practices.

Gender dynamics further complicate the discourse on academic achievement, with conflicting findings regarding its impact on students' performance (Ay & SenBartan, 2012; Zare & Othman, 2013). While some studies suggest gender-based differences in reading comprehension, others find no significant disparities (Oda & Abdul-kadhim, 2017; Yadivanshi & Singh, 2018; Ugwu, 2019). The present study draws on theoretical frameworks such as Deutsch's Theory of Competition and Cooperation (1949) and Piaget's scheme theory (1926) to explore the potential interaction between gender, instructional strategies like STAD, and reading comprehension outcomes. Through a comprehensive examination of these factors, the study aims to contribute to our understanding of effective approaches to address the challenges in reading comprehension instruction.

Empirically, a study conducted by Kahu, Nelson and Picton (2017) examined the pivotal role of student interest as a primary driver of engagement within the context of first-year students enrolled at a regional Australian university. Their empirical findings underscore the intricate dynamics wherein both inherent individual interests and goal-oriented motivations within the educational milieu serve to incite situational interest. This situational interest, in turn, intricately enhances both behavioral and cognitive engagement, consequently exerting a significant influence on learning outcomes and academic performance. Noteworthy within their analysis is the discernible importance attributed to the perceived relevance of learning tasks as a determinant factor of students' interest, complemented by the nuanced interplay of emotions, self-efficacy, and a sense of belonging in shaping the multifaceted relationship between students' interests, pedagogical environments, and overall engagement levels. While both the reviewed study and the present inquiry share a thematic emphasis on exploring the variable of student interest, disparities arise in terms of their

respective research scopes, geographic locales, and methodological frameworks. Specifically, while the former delves into the nexus between students' interest and engagement among first-year cohorts in the regional Australian setting, the latter endeavors to elucidate the efficacy of the Student–Teams Achievement Divisions (STAD) strategy in augmenting reading comprehension, interest attainment, and academic achievement among male and female students situated in Makurdi, Benue, Nigeria.

Araromi and Olatubosun, (2018) examined students' interest in reading and availability of reading materials as relate to and predict students' achievement in English reading comprehension in Lagelu Local Government Area (LGA) of Oyo State, Nigeria. The study concluded that students' interest in reading and availability of reading materials are significantly related to students' achievement in English reading comprehension, though only reading materials could substantially predict students' achievement in reading comprehension. Governments should increase reading materials in schools. Araromi and Olatubosun's study is related to the present study as both studies examined the effect of interest on students' academic achievement. The reviewed study and this present study differ in research methodology, location and population. The reviewed study examines students' interest in reading and availability of reading material as they relate to and predict students' achievement in English reading comprehension in Lagelu Local Government Area, Oyo State, Nigeria. While the present study explores the Impact of Student–Teams Achievement Divisions (STAD) strategy on reading comprehension, interest and achievement among male and female students in Makurdi, Benue, Nigeria.

Endah, Thahar and Asri (2018), investigated the contribution of reading interest on literature and reading comprehension toward students' ability in writing fantasy story among VII grade of Junior High Schools in Padang. The result indicates that reading interest on literature contributes 61.3%. Second, the reading comprehension on fantasy story contributed 55.5%. Third, both of the reading interest on

literature and reading comprehension on fantasy story contributed 63.8%. Thus, reading interest on literature and reading comprehension on fantasy story gave contribution and significant relationship toward ability in writing fantasy story text. Endah, Thahar and Asri's study relates to the present study. The two studies investigate the effect of interest on students' academic achievement. The differences between the revealed study and the present study are in population, methodology, topic, location and approach. The reviewed study investigates the contribution of reading interest on literature and reading comprehension toward students' ability in writing fantasy story in Padang. The present study examines the Impact of Student–Teams Achievement Divisions (STAD) strategy on reading comprehension, interest and achievement among male and female students in Makurdi, Benue, Nigeria.

Husni and Nina (2018) investigated the impact of two cooperative learning and teaching strategies; Teams Games Tournaments (TGT) and Student Team Achievement Divisions (STAD) on reading comprehension achievement of Junior High School students with different reading habits in Tehunan Jepara. The results revealed that TGT and STAD are effective in improving students' reading comprehension where  $F$  ratio (28.846) >  $F$  table (3.99), but on the other side, students' reading habit, both high and low, cannot affect students' reading comprehension. It was also concluded that there was no interaction effect between teaching strategies and reading habits on students' reading comprehension. Husni and Nina's study is related to this study; both studies explore the general impact of cooperative learning and STAD model on reading comprehension. The differences in the reviewed study and the present study are location, population, sample, and variables. The reviewed study examined the impact of two cooperative teaching strategies (TGT & STAD) and reading habits on students' reading comprehension in Jepara while the present study explores the effects of STAD strategy on the interest and achievement in Makurdi, Benue – Nigeria.

Glamo-Narzoles, (2015) conducted a research titled “Student Team Achievement Division (STAD): Its Effect on the Academic Performance of EFL Learners” in Bahrian. Results of the study revealed that the students who were exposed to STAD had enriched academic performance in the English Communication Skills 2 course. Results on the post-test mean scores of the participants revealed that there is a significant effect on the academic performance of the experimental group in which the STAD had been introduced. As such, students exposed to STAD performed better than students who were taught in the traditional teaching method. Moreover, results indicate that there is a significant relationship between the students' attitudes toward English and their academic performance in the course. Glamo-Narzoles' study is related to the present study; both studies are concern about STAD and its effect on the academic achievement of students. Both studies are different in terms of location, population and methodology. The reviewed study focus on Student Team Achievement Division (STAD): It Effect on the Academic Performance of EFL Learners in Bahrian, while the present study explores the effects of STAD strategy on reading comprehension interest and achievement among male and female students in Makurdi, Benue – Nigeria,

Ugwu (2019) examined the Effect of Student Teams Achievement Divisions and Think-Pair-Share on Students' Achievement in Reading Comprehension in Vandeikya Local Government Area, Benue State, Nigeria. The results showed higher achievement gains for students in the EG1 and EG2 over those of the CG, but not across gender. The findings support the existing evidence on the efficacy of cooperative learning over the traditional teaching method. English language teachers will therefore find the two techniques useful in teaching reading comprehension. Ugwu's research is related to this present study as both studies adopt STAD cooperative strategy. There are differences in both studies. The reviewed study examines effect of Student Teams Achievement Divisions and Think-Pair-Share on students' achievement in reading comprehension in Vandeikya LGA, Benue State, Nigeria. While the present study

dwells on effects of STAD strategy on reading comprehension, interest and achievement of male and female students in Makurdi, Benue – Nigeria.

In India, Yaduvanshi and Singh (2018) examined the effect of two types of cooperative learning strategies (CLSs) including structured CLS [Student Team Achievement Division (STAD)] and informal CLS on the achievement in Biology among secondary school students with respect to their gender. The results revealed that both the structured and informal types of cooperative learning instructional strategies enhance students' achievement in biology. The study shows that structured CLS (STAD) as well as informal CLS had no significant effect on students' achievement in relation to their gender, although in both cases, the female students achieved more than their male counterpart. Thus, a n implementation of CLS has a step to realize gender equity in the science classroom. The reviewed study is related to the present study as both studies address the effect of cooperative learning strategy and gender roles in students' academic achievement. The differences are; the reviewed study was carried out in India and the school subject used was Biology while the present study is conducted in Makurdi, Benue State, Nigeria and the school subject is English language.

The literature reveals several gaps: Kahu, Nelson, and Picton (2017) focused on first-year students in a regional Australian university, lacking diverse contexts and longitudinal insights, and do not assess specific teaching strategies like STAD. Araromi and Olatubosum (2018) emphasized material availability without exploring pedagogical interventions, limiting generalizability beyond a single local area. Endah, Thahar, and Asri (2018) are confined to writing skills and a single grade level in Indonesia, with no focus on diverse strategies like STAD. Husni and Nina (2018) compared TGT and STAD but overlook other models and long-term effects, with results specific to Tehunan Jepara. Glamo-Narzoles (2015) is limited to EFL learners in Bahrain, without broader applicability or comparisons to other methods. Ugwu (2019) does not explore underlying reasons for gender findings or broader generalizability beyond Vandeikya LGA. Yaduvanshi and Singh (2018)

focused on biology in India, lacking exploration of other subjects and detailed mechanisms of cooperative learning. These gaps suggest the need for broader, longitudinal, and contextually varied research on instructional strategies like STAD, which the present study aims to address.

### Objectives of the study

The primary objective of this study is to examine the impact of Student Teams Achievement Divisions (STAD) strategy on reading comprehension, interest and achievement of both male and female students. Specifically, the research aims to achieve four key objectives:

1. to ascertain the influence of STAD strategy on students' interest levels regarding reading comprehension; secondly;
2. to determine the effect of STAD strategy on students' overall achievement in reading comprehension tasks; thirdly;
3. to explore any disparities in the impact of STAD strategy on the interest levels of male and female students in reading comprehension and;
4. to examine potential variations in the achievement outcomes of male and female students in reading comprehension tasks following the implementation of STAD strategy.

### Research Questions

To guide the inquiry, the research questions are structured as follows:

- i.) What are the differences in mean interest ratings between students taught reading comprehension using STAD strategy and those taught using conventional methods?
- ii.) What are the disparities in mean achievement scores between students taught reading comprehension using STAD strategy and those taught using conventional methods?
- iii.) How do the mean interest ratings of male and female students differ when taught reading comprehension using STAD strategy?
- iv.) What are the variations in mean achievement scores between male and female students when taught reading comprehension using STAD strategy?

### Research Hypotheses

These research questions are accompanied by corresponding null hypotheses, formulated as follows:

HO<sub>1</sub> - There is no significant difference in mean interest ratings between students taught reading comprehension using STAD strategy and those taught using conventional methods

HO<sub>2</sub> - There is no significant difference in mean achievement scores between students taught reading comprehension using STAD strategy and those taught using conventional methods

HO<sub>3</sub> - There is no significant difference in mean interest ratings between male and female students taught reading comprehension using STAD strategy

HO<sub>4</sub> - There is no significant difference in mean achievement scores between male and female students taught reading comprehension using STAD strategy.

### Method

The study adopted a quasi-experimental pretest and posttest design. This quasi experimental approach is implemented within normal classroom settings to facilitate authentic teaching and learning experiences (Emaikwu, 2021). The dependent variables, comprising reading comprehension levels and interest, are assessed both before and after the implementation of the treatment, with intact Senior Secondary II classes designated as the experimental and control groups (Trochim, 2020).

The target population consists of approximately 15,200 male and female SS II students across 311 public schools in Benue state, Nigeria (Federal Ministry of Education, 2021). SS II students are selected for their relative stability compared to SS I and SS III students, allowing for a focused examination of STAD strategy's impact on academic performance, particularly in preparation for external examinations. By exposing SS II students to STAD reading comprehension strategy, the study aims to enhance their academic achievement.

A sample size of 132 respondents, comprising 65 male and 67 female students from four co-educational public secondary schools in Makurdi

local government area, Benue, Nigeria, is selected for data collection. Two instruments, namely the Students' Reading Comprehension Achievement Test (SRCAT) and the Students' Reading Comprehension Learning Interest Scale (SRCLIS), are utilized to gather data. Reliability testing of these instruments confirms their consistency, with reliability coefficients of 0.84 for SRCAT and 0.94 for SRCLIS, ensuring the

reliability of the collected data. For the analysis, the researchers employ mean and standard deviations to answer the research questions, while Analysis of Covariance (ANCOVA) is employed to test the research hypotheses, accounting for non-equivalence among intact classes and controlling extraneous variables at a significance level of 0.05%.

**RESULTS**

**Table 1**

Comparison of Mean Interest Ratings of Students taught Reading Comprehension using STAD Co-operative Learning Strategy and those taught using Conventional Strategy

Group		Pre-interest	Post-interest	Mean gain
Experimental	Mean	1.69	2.11	0.42
	N	82	82	
	SD	0.39	0.71	
Control	Mean	1.84	1.87	0.03
	N	50	50	
	SD	0.45	0.44	
<b>Mean difference</b>				<b>0.39</b>

*Source: Field Work (2021)*

Table 1 shows the pre-interest mean rating 1.69 with standard deviation of 0.39 for experimental group while the control group had 1.84 with standard deviation scores of 0.45. For the post interest, it was 2.11 for the experimental group

with standard deviation of 0.71 while the control group had mean interest rating of 1.87 and standard deviation of 0.44. The mean gain was 0.39 in favour of students taught reading comprehension using STAD strategy.

**Table 2**

Comparison of Mean Achievement Scores and Standard Deviation of Students taught Reading Comprehension using STAD Strategy and those taught using Conventional Strategy

Group		Pre-test	Post-test	Mean gain
Experimental	Mean	26.18	35.65	9.47
	N	82	82	
	SD	5.38	6.31	
Control	Mean	26.72	31.72	5
	N	50	50	
	SD	7.24	7.26	
<b>Mean difference</b>				<b>4.47</b>

*Source: Field Work (2021)*

Table 2 reveals the pre-test mean achievement score of students in the experimental group as 26.18 with standard deviation of 5.38 while the control group had 26.72 with standard deviation of 7.24. At the post-test, the experimental group

had a mean achievement score of 35.65 with 6.31 as standard deviation while the control group had 31.72 as mean achievement score with 7.26 as the standard deviation. The mean gain for the experimental group was 9.47 and 5 for the control

group. The difference in mean gain was 4.47 in favour of STAD strategy.

**Table 3**

Comparison of Mean Interest Ratings of Male and Female Students taught Reading Comprehension using STAD Strategy

<b>Gender</b>		<b>Pre-interest</b>	<b>Post-interest</b>	<b>Mean gain</b>
Male	Mean	1.67	2.27	0.6
	N	35	35	
	SD	0.37	0.44	
Female	Mean	1.71	1.99	0.28
	N	47	47	
	SD	0.40	0.59	
<b>Mean difference</b>				<b>0.32</b>

*Source: Field Work (2021)*

Table 3 shows that pre-interest mean rating of male students was 1.67 with corresponding standard deviation of 0.37 while females had 1.71 with standard deviation as 0.40. At post-interest, male students had a mean rating of 2.27 with standard deviation of 0.44 while female students

had a mean rating of 1.99 with 0.59 shown as the standard deviation. The mean gain for male students was 0.6 while female students gained 0.28. The difference in the mean gain of male and female students exposed to STAD strategy was 0.32 in favour of male students.

**Table 4**

Comparison of Mean Achievement Scores and Standard Deviation of Male and Female Students taught Reading Comprehension using STAD Strategy

<b>Gender</b>		<b>Pre-test</b>	<b>Post-test</b>	<b>Mean gain</b>
Male	Mean	24.57	34.80	10.23
	N	35	35	
	SD	4.98	7.76	
Female	Mean	27.38	36.28	8.9
	N	47	47	
	SD	5.40	4.97	
<b>Mean difference</b>				<b>1.33</b>

*Source: Field Work (2021)*

Table 4 indicates the pre-test mean achievement score of male students as 24.57 with standard deviation of 4.98 while female students pre-test mean achievement score was 27.38 with standard deviation of 5.40. At post-test mean achievement score, male students had 34.80 and 7.76 as standard deviation while female students had

post-test mean achievement score of 36.28 and standard deviation of 4.97. The mean gain of male students was 10.23 while female students gained 8.9. The difference in mean gain of male and female students exposed to STAD strategy was 1.33 in favour of male students.



**Table 5**

ANCOVA on Mean Interest Ratings of Students taught Reading Comprehension using STAD Strategy and those taught using Conventional Strategy

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	4.504 <sup>a</sup>	2	2.252	6.070	0.003
Intercept	12.973	1	12.973	34.967	0.000
Pre-interest	2.632	1	2.632	7.094	0.009
Strategy	2.623	1	2.623	7.071	0.009
Error	47.858	129	0.371		
Total	589.699	132			
<b>Corrected Total</b>	<b>52.362</b>	<b>131</b>			

*Source: Field Work (2021)*

Table 5 shows that  $f = 7.07$ ;  $p = 0.00$ . Since  $p$  was less than 0.05 ( $p < 0.05$ ), the null hypothesis was, therefore, rejected. This means that there was a significant difference between the interest ratings

of students taught reading comprehension using STAD strategy and those taught using conventional strategy.

**Table 6**

ANCOVA on Mean Achievement Scores of Students taught Reading Comprehension using STAD Strategy and those taught using Conventional Strategy

Source	Type III Sum of Squares	Df	Mean Square	f	Sig.
Corrected Model	2569.611 <sup>a</sup>	2	1284.805	44.505	0.000
Intercept	1798.917	1	1798.917	62.314	0.000
Pre-SRCAT	2090.775	1	2090.775	72.424	0.000
Strategy	567.002	1	567.002	19.641	0.000
Error	3724.048	129	28.869		
Total	160317.000	132			
<b>Corrected Total</b>	<b>6293.659</b>	<b>131</b>			

*Source: Field Work (2021)*

Table 6 reveals that  $f(1, 131) = 19.64$ ;  $p = 0.00 < 0.05$ . Since the p-value (0.000) was less than the alpha level (0.05), the null hypothesis of no significant difference between the mean achievement scores of students taught reading comprehension using STAD co-operative

learning strategy and those taught using conventional strategy was rejected. This means that there was a significant difference in the mean achievement scores of students taught reading comprehension using STAD strategy and those taught using conventional strategy.

**Table 7**

ANCOVA on Mean Interest Ratings of Male and Female Students taught Reading Comprehension using STAD Strategy

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1.908 <sup>a</sup>	2	0.954	1.932	0.152
Intercept	14.225	1	14.225	28.812	0.000
Pre-interest	.299	1	0.299	0.606	0.438
Gender 1	.679	1	1.679	3.401	0.069
Error	39.004	79	.494		
Total	406.191	82			
<b>Corrected Total</b>	<b>40.913</b>	<b>81</b>			

Source: Field Work (2021)

Table 7 reveals the probability associated with the  $f$  (3.40) was 0.06 and probability value of 0.06 ( $.06 > 0.05$ ). Since the probability value of 0.06 was greater than the significant value of 0.05, the null hypothesis was not rejected. This shows that

there was no significant difference between the mean interest rating of male and female students taught reading comprehension using STAD co strategy.

**Table 8**

ANCOVA on Mean Achievement Scores of Male and Female Students taught Reading Comprehension using STAD Strategy

Source	Type III Sum of Squares	Df	Mean Square	$f$	Sig.
Corrected Model	795.029 <sup>a</sup>	2	397.514	12.89	0.000
Intercept	1285.992	1	1285.992	41.710	0.000
Pre-SRCAT	751.289	1	751.289	24.367	0.000
Gender	0.547	1	0.547	0.018	0.894
Error	2435.715	79	30.832		
Total	107425.000	82			
<b>Corrected Total</b>	<b>3230.744</b>	<b>81</b>			

Source: Field Work (2021)

Table 8 shows  $f(1, 81) = 0.01$ ;  $p = 0.89 > 0.05$ . Since the probability value was higher than 0.05 alpha level of significant, the null hypothesis was not rejected. This result, therefore, implies that there was no significant difference between the mean achievement scores of male and female students taught reading comprehension using STAD strategy.

The findings highlight the significant impact of Student Teams Achievement Divisions (STAD) strategy on students' interest in reading comprehension, emphasizing its effectiveness in fostering enhanced engagement with reading tasks. The considerable increase in mean interest ratings observed among students taught using STAD strategy compared to those taught using conventional methods underscores the efficacy of this collaborative approach. This suggests that the cooperative nature of the STAD strategy creates a more stimulating and motivating learning

## Discussions

Impact of STAD Strategy on Students' Interest in Reading Comprehension

environment, encouraging students to actively participate and interact with the material. The observed improvement in students' interest levels underscores the importance of innovative instructional strategies that prioritize active student engagement, as such approaches lay a solid foundation for sustained interest and improved learning outcomes in reading comprehension tasks. Furthermore, it actively stimulates interest in reading comprehension tasks, the STAD strategy not only promotes a more engaging learning experience but also sets the stage for enhanced academic achievement. The observed increase in students' interest levels indicates a positive shift to reading comprehension. This underscores the value of implementing pedagogical approaches that foster collaborative learning environments, as they have the potential to significantly impact students' learning experiences and outcomes. The findings suggest that STAD strategy holds promise as an effective tool for promoting both interest and achievement in reading comprehension among students. This agrees with Kahu, Nelson and Picton (2017), and Araromi and Olatubusm (2018).

#### ***The Impact of STAD Strategy on Students' Achievement in Reading Comprehension***

The findings concerning the impact of STAD strategy on students' achievement in reading comprehension demonstrate its positive influence on academic performance. This agrees with Husni and Nina (2018), establishing that Teams Games Tournament (TGT) and Student Teams Achievement Division (STAD) are effective in improving students' reading comprehension. Glamo-Narzoles (2015) also established that students exposed to STAD had enriched academic performance in the English Communication Skills II. The significant increase in mean achievement scores observed among students taught with STAD strategy compared to those taught using traditional methods highlights the strategy's effectiveness in bolstering students' comprehension abilities and knowledge acquisition. By fostering a collaborative learning environment, STAD approach encourages active engagement with reading materials, facilitating exchange of ideas among students and providing

mutual support in the learning process. These results underscore the potential of the STAD strategy as a valuable pedagogical tool for enhancing students' achievement outcomes in reading comprehension tasks, suggesting its utility in promoting deeper understanding and retention of content.

#### ***The Impact of STAD Strategy on Male and Female Students' Interest in Reading Comprehension***

The findings regarding the impact of STAD strategy on male and female students' interest in reading comprehension suggest a positive effect for both genders, albeit with subtle variations. While both male and female students exhibited heightened interest levels after receiving reading comprehension instruction with STAD strategy, the discrepancy in mean gain between the genders was marginal. This indicates that STAD strategy is equally adept at eliciting interest in reading comprehension tasks among male and female students. The collaborative and cooperative framework of STAD approach seems to resonate with students from diverse gender backgrounds, fostering a nurturing learning environment conducive to heightened engagement and interest in reading. These results underscore the inclusivity of the strategy in promoting interest in reading comprehension tasks across genders. The observed similarity in the effectiveness of the strategy for male and female students suggests its versatility and potential to cater for the varied needs and preferences of learners. By providing a supportive platform for collaborative learning, STAD approach enables both male and female students to actively engage with reading materials, fostering a shared sense of involvement and enthusiasm in the learning process. The results agree with Endah, Thahar and Asri (2018) and Ugwu (2019).

#### ***The Impact of STAD Strategy on Male and Female Students' Achievement in Reading Comprehension***

The results concerning the impact of the STAD strategy on male and female students' achievement in reading comprehension reveal significant advancements in academic performance for both genders. Despite slight

discrepancies in mean gain between male and female students, the overarching improvement in achievement scores among both groups underscores the efficacy of the STAD approach in fostering learning and comprehension. These findings indicate that the collaborative learning environment facilitated by the STAD strategy is conducive to enhancing achievement outcomes among male and female students alike. By offering avenues for active involvement, peer collaboration, and knowledge exchange, the STAD strategy empowers students to attain higher levels of proficiency in reading comprehension, irrespective of gender. In essence, these results highlight the inclusive nature of the STAD strategy in promoting academic achievement in reading comprehension tasks across genders. The observed consistency in the effectiveness of the strategy for male and female students suggests its adaptability and capacity to meet the diverse learning needs of learners. By fostering a collaborative learning environment where students are encouraged to engage actively with the material and support one another's learning, the STAD approach facilitates a shared sense of accomplishment and academic growth among both male and female students. According to Ugwu (2019) STAD and Think-Pair-Share enhance students' achievement in reading comprehension but not across gender. Yaduvanshi and Shingh (2018) revealed that STAD enhances students' achievement in Biology but has no significant on students' gender.

## CONCLUSION

Findings of this study reveal that STAD strategy enhances students' interest in reading comprehension. This is observed through students' post interest ratings in Students' Reading Comprehension Learning Interest Scale (SRCLIS) which was significantly higher than the pre interest rating scales among experimental group. This is attributed to the team nature of STAD strategy. It is also established from findings of this study that STAD strategy significantly enhances students' achievement in reading comprehension. Students taught using STAD strategy were exposed to team work, individual responsibility, healthy competition and cooperation. These factors significantly enhanced

their achievement in reading comprehension. In the area of students' gender, it is concluded that STAD strategy addresses gender differences. Students who were taught using STAD strategy did not indicated any significant differences in interest and achievement in reading comprehension among the male and female students. Therefore, teachers, schools, government, private and public sectors should use STAD strategy in the teaching and learning process. Regular workshops, seminars, symposiums, conferences and webinars should be regularly organized to enhance teachers' pedagogical approaches and professionalism

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