

EFFECT OF INTERACTIVE TEACHING METHOD ON ENGLISH READING COMPREHENSION ACHIEVEMENT OF JUNIOR SECONDARY SCHOOL STUDENTS IN SOKOTO STATE

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Abstract

This study investigated the effects of Interactive Teaching Method on Junior Secondary School students' achievement in English reading comprehension in Sokoto state, Nigeria. The study aimed at finding out if there was a significant difference in the achievement of students in English reading comprehension when exposed to Interactive Teaching Method. There were three objectives of the study with three questions and three corresponding null hypotheses. The study employed quasi-experimental research design with experimental and control groups. John Dewey's theory of learning by doing was reviewed in the study. The study lasted for eleven weeks. English Reading Comprehension Achievement Test (ERCAT) was used as instrument for data collection which was validated by experts and produced T-CVI of 0.76, and 0.88 index of reliability was obtained after pilot-tested. A total of 205 students participated in the study. Experimental group was made of 100 students while control group was 105. The analysis of the data collected was done using appropriate tools in Statistical Package for Social Sciences (SPSS) version 23. The study found that students taught English reading comprehension in Junior Secondary Schools in Sokoto state using Interactive Teaching Method outperformed those taught using Drills and Practice. The study therefore recommended among others that teachers of English under training and those in service should be made to understand how to use the Interactive Teaching Methods effectively via seminars, conferences and workshops to be organized by government and professional bodies.

Keywords: Interactive teaching method; reading comprehension achievement

Introduction

Reading can be viewed as a basic or fundamental language skill which every child has the right to master as prerequisite for a successful academic journey. Umar and Kanoma (2018) perceived reading as the ability to go through a written text. Comprehension could be seen as the ability to make meaning out of a text. Teshome (2014) reported that reading comprehension involves the extraction of meaning from written language and it would generally be agreed that comprehension is the ultimate goal of teaching children to read independently. Also, Okeke (2013) reported that reading comprehension is the culmination of all the reading skills and the ultimate goal of learning to read-that reading comprehension is the level of understanding of a text. She further stated that this understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text, hence reading for comprehension is observed to be a multifaceted process. Comprehension refers to children's understanding of what they

are reading. This not only includes reading, but also what is written. Experienced readers take this for granted and may not appreciate the reading comprehension skills required.

Hardworking teachers have many fruitful ways to reach out their students irrespective of their individual differences. Effective utilization of Interactive Teaching Method provides chances to students that are normally available in traditional situations. Interactive teaching also gives emphasis on the process of learning and not only presenting information to students. The basis of interactive teaching is that students ought to be active learners. Interactive teaching emphasizes that learners have experience and knowledge that they bring to each situation. Teachers therefore use the students' knowledge and support them to learn more and more. The first thing to understand about interactive teaching is that it is not something new or mysterious. If a teacher asks questions in class, assigns and checks homework, or holds class or group discussions, then the teacher already teaches interactively. Literally, interactive teaching is about giving students something to do, getting back to what they have done assimilating it so that the teacher can decide what activity would be best to do next time. Almost all teachers do these things.

Sony (2013) investigated the effect of using interactive approach on reading comprehension of the tenth grade students and found that the students taught with the method have significantly improved in their reading comprehension achievement. Yusuf (2015) on the impact of interactive activities on students' reading comprehension revealed that interactive activities have significant impact on students' reading comprehension. Mene Mene (2020) found that interactive-reading approach helped students to identify details, main ideas, intentionality of the author and prediction of meaning, all of which are part and parcel of comprehension. Nurul Hayati, Usman and Asnawi (2020) asserted that the use of interactive approach improved students' reading comprehension overall achievement. The use of interactive teaching method could significantly improve the reading comprehension, motivation, and fluency levels of the students of various levels according to Ceyhan and Yildiz (2021). Students who are exposed to interactive teaching approach will be more attracted, motivated and proficient in dealing with the reading text because the emphasis on the bottom-up and the top-down processing (Triana and Milenio, 2021). The findings of the study by Auta, Ibrahim and Kajinyana (2022) on the effect of Interactive Teaching Strategies on Polytechnic students' performance in English reading comprehension revealed that the polytechnic students taught aspects of reading comprehension using the Interactive Teaching Strategies performed significantly better than students taught the same using different method. Pamuk and Valizadeh (2023) reported in a study that teaching reading using interactive teaching method had a significant effect on students' comprehension skills.

Workshops are organized regularly by Agencies like the National Teachers Institute (NTI), the Millennium Development Goals (MDGs) and other NGOs such as the British Council to produce good teachers of English. The West African Examination Council (WAEC) is continually experimenting new syllabuses and methods of examining English but it appears that something more important has to be done. English Language students in junior secondary schools find it difficult to perform tasks that require high cognitive thinking like reading comprehension. Specifically, reading comprehension requires them to apply, analyze, synthesize and evaluate within the context of Blooms (1956) taxonomy of educational objectives. This learning difficulty was also evident in problem solving skills as demonstrated by their consistent poor performance in English language exercises

such as the reading comprehension. Thus, the concern of this paper is to determine the effects of interactive teaching method on students' achievement in English reading comprehension in Junior Secondary Schools in the Sokoto state, Nigeria. It is also the aim of this paper to determine the effects of this method on school location and gender.

Objectives of the Study

This paper sets to:

- I. Find out the effect of Interactive Teaching Method on Junior Secondary School students' achievement in English reading comprehension.
- II. Ascertain the effect of Interactive Teaching Techniques on Junior Secondary School male and female students' achievement in English reading comprehension.
- III. Determine the effect of school location on Junior Secondary School students' achievement in English reading comprehension when taught using Interactive Teaching Method.

Hypotheses

The following Null hypotheses were tested:

- H01. There is no significant difference in the achievement of English reading comprehension between Junior Secondary School students exposed to Interactive Teaching Method and those to Drills and Practice Method.
- H02. There is no significant difference in the achievement of English reading comprehension between Junior Secondary School male and female students exposed to Interactive Teaching Method.
- H03. There is no significant difference in the achievement of English reading comprehension between Junior Secondary School students in urban and rural areas taught English using Interactive Teaching Method.

Methodology

This study employed quasi-experimental research design, specifically non-randomized, non-equivalent control group, pre-test, post-test design. The study is delimited to JSS 2 students in public Junior Secondary Schools. There was total of 24814 JSS 2 students in public Junior Secondary Schools in Sokoto state out of which 13900 were males and 10,914 were female. Using random sampling, a sample size of 205 JSS 2 students from six intact classes of the six secondary schools selected Sokoto state. The classes were grouped into two: three classes formed experimental group while the other three classes served as control group. Experimental group was exposed to Interactive Teaching Method. The instrument of data collection in this study was researcher-designed tagged "English Reading Comprehension Achievement Test (ERCAT)". The instrument was validated by experts, and its reliability was determined using test retest method. Pearson Product Moment Correlation was used to run the analysis in Statistical package for Social Science version 23 and produced the coefficient index of 0.88 which made the instrument reliable.

Results

Hypothesis One: there is no significant difference in the achievement of English reading comprehension between Junior Secondary School students exposed to Interactive Teaching Method and those to Drills and Practice Method.

Table 1 Reading Comprehension t-test results of Experimental and Control Groups

Group	N	Mean	SD	Df	t-cal	p-value	Remarks
Experimental Group	100	13.40	4.09				
				203	-7.38	0.000	Sig.
Control Group	105	11.37	3.01				

Source: Field Work, 2024. P=0.05

Table 1 illustrated the results of post-test analysis on English reading comprehension achievement of JSS 2 students exposed to Interactive Teaching Methods in the experimental group and those taught with Drills and Practice Method in the control group. Experimental group recorded the highest mean score and standard deviation of 13.40 and 4.09 whereas the control group obtained the mean score and standard deviation of 11.37 and 3.01. This implies that the students in the experimental group outperformed those in the control group. The T-test results also show that the probability calculated (p-value 0.000) is less than the 0.05 level of significance as the t-calculated is -7.38 at 203 degree of freedom. The rule of T-test guiding the acceptability of a particular hypothesis is that whenever the t-calculated is greater than 0.05, the null hypothesis is rejected. Since the t-calculated is greater and p-value which is less than 0.05, the null hypothesis is hereby rejected for there is significant difference in English reading comprehension achievement between JSS 2 students exposed Interactive Teaching Methods and those taught using Drills and Practice Method in Sokoto state.

Hypothesis Two: there is no significant difference in the achievement of English reading comprehension between Junior Secondary School male and female students exposed to Interactive Teaching Method.

Table 2 Reading Comprehension t-test results of Experimental and Control Groups

Group	N	Mean	SD	Df	t-cal	p-value	Remarks
Experimental Group	100	13.40	4.09				
				203	-7.38	0.000	Sig.
Control Group	105	11.37	3.01				

Source: Field Work, 2024. P=0.05

Table 2 illustrated the results of post-test analysis on English reading comprehension achievement of JSS 2 students exposed to Interactive Teaching Methods in the experimental group and those taught with Drills and Practice Method in the control group. Experimental group recorded the highest mean score and standard deviation of 13.40 and 4.09 whereas the control group obtained the mean score and standard deviation of 11.37 and 3.01. This implies that the students in the experimental group outperformed those in the control group. The T-test results also show that the probability calculated (p-value 0.000) is less than the 0.05 level of significance as the t-calculated is -7.38 at 203 degree of freedom. The rule of T-test guiding the acceptability of a particular hypothesis is that whenever the t-calculated is greater than 0.05, the null hypothesis is rejected. Since the t-calculated is greater and p-value which is less than 0.05, the null hypothesis is hereby rejected for there is significant difference in English reading comprehension achievement between JSS 2 students exposed Interactive Teaching Methods and those taught using Drills and Practice Method in Sokoto state.

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Hypothesis Two: there is no significant difference in the achievement of English reading comprehension between Junior Secondary School male and female students exposed to Interactive Teaching Method.

Table 3 Reading Comprehension t-test results of male and female in the Experimental Group

Group	N	Mean	SD	Df	t-cal	p-value	Remarks
Male	54	14.40	3.42	98	-.911	0.000	Sig.
Female	46	12.12	2.60				

Source: Field Work, 2024. P=0.05

Table 3 revealed the results of post-test analysis on English reading comprehension achievement of JSS 2 male and female students exposed to Interactive Teaching Methods in the experimental. The male students recorded the highest mean score and standard deviation of 14.40 and 3.42 while the female students obtained the mean score and standard deviation of 12.12 and 2.60. This means that the male students in the experimental group outperformed their female counterpart. The T-test results also show that the probability calculated (p-value 0.000) is less than the 0.05 level of significance as the t-calculated is -.911 at 98 degree of freedom. The rule of T-test guiding the acceptability of a particular hypothesis is that whenever the t-calculated is greater than 0.05, the null hypothesis is rejected. Since the t-calculated is greater and p-value which is less than 0.05, the null hypothesis is hereby rejected for there is significant difference in English reading comprehension achievement between JSS 2 male and female students exposed Interactive Teaching Methods in Sokoto state.

Hypothesis Three: there is no significant difference in the achievement of English reading comprehension between Junior Secondary School students in urban and rural areas taught English using Interactive Teaching Method.

Table 4: Reading Comprehension t-test results of students from rural and urban schools in the Experimental Group

Group	N	Mean	SD	Df	t-cal	p-value	Remarks
Rural	46	8.30	3.21	98	-.840	0.000	Sig.
Urban	54	10.81	4.73				

Source: Field Work, 2024. P=0.05

Table 4 revealed the mean scores of JSS 2 students in rural and urban schools. based on their status, the students in rural schools obtained the mean scores of 8.30 and standard deviation of 3.21 while the students in urban schools attracted the mean responses of 10.81 and standard deviation of 4.7 The t-value observed is -.840, while the p-value is 0.000 (P<0.005). The result above showed that students in urban schools outperformed those in the rural schools. Hence, the null hypothesis of no significant difference was rejected.

Summary of major findings

The major findings of this study can be summarized as follow:

- I. Results from the study revealed a significant difference in English reading comprehension achievement between the JSS 2 students taught using Interactive Teaching Methods and those taught with Drills and Practice Method in favour of those taught using Interactive Teaching Methods in the experimental group as $t(103) = -738, p = 0.680$.
- II. Findings revealed a significant difference in English reading comprehension achievement of female and male JSS 2 students taught using Interactive Teaching Methods in favour of male students as $t(98) = -.911, p = 0.000$.
- III. The findings further showed a significant difference in English reading comprehension achievement of JSS 2 students in rural and urban schools taught using Interactive Teaching Methods in favour of students in urban schools as $t(98) = -.840, p = 0.000$.

Discussion

The findings of the study have shown that the JSS 2 students taught using Interactive Teaching Methods have improved in their reading comprehension achievement far better than those taught using Drill and Practice. This was confirmed by the results on table 9 which revealed that the differences in posttest scores were statistically significant in favour of the students subjected to treatment condition. This revealed that Interactive Teaching Method is effective for improving the reading comprehension achievement of JSS 2 students in Sokoto state.

The findings of this study is in agreement with the results from previous study by Sony (2013) who studied the effects using interactive approach on reading comprehension ability of the tenth grade students and discovered that the mean score of the experimental group is higher than that of the control group and the t-test result also showed the t-value is higher than the p-value at the significance level of 5% which revealed there is a significant difference in reading comprehension ability between the students taught using interactive approach and those taught without using it. The results from the study by Yusuf (2015) on impact of interactive activities on students' performance in reading comprehension conducted a discovered that interactive activities are helpful in understanding and comprehending written texts and also help teacher to see how students' individual thought processes are working with the information received from texts. The findings of this study is equally in agreement with the results from the study by Mene Mene (2020) who found out that the provision of clear instructions and inclusion of activities focused on the interactive-reading approach helped students to identify details and main ideas, intentionality of the author and prediction of meaning which in turn improved their comprehension achievement.

Moreover, the findings of this study tallied with the results from the study by Ceyhan and Yildiz (2021) who investigated the effect of interactive reading aloud (IRA) lessons on students' reading comprehension levels, reading motivation, and reading fluency skills and concluded that reading comprehension, motivation and fluency levels of the students in the experimental groups have improved significantly. Triana and Milenio (2021) who investigated whether the students who are taught using interactive approach have better achievement in reading comprehension than the students taught using conventional technique discovered that the students exposed to interactive approach have been more

proficient in dealing with the reading text and comprehension achievement. Auta, Ibrahim and Kajinyana (2022) found out that interactive teaching strategies are effective for teaching reading comprehension and recommended that teachers should adopt interactive teaching strategies with a view to making learners perform better in English reading comprehension. The findings of this study also agreed with the results from the study by Pamuk and Valizadeh (2023) on interactive teaching and learning activities discovered that teaching reading in a collaborative way had a significant effect on students' comprehension skills.

Conclusion

Based on findings of the study, the researcher concluded that students taught with Interactive Teaching Methods performed significantly better than those taught using Drills and Practice Method. The higher performance by the experimental group could be as a result of the fact that the teaching method used is students-centered which provided the students opportunity to interact with their teacher and other students. Also, the bit by bit instruction procedure provided by the method is another reason that made students in the experimental group learn easily and perform better than the control group. The effective use of Interactive Teaching Methods could be seen based on the presentation of concepts with concrete teaching aids and teaching aids are very effective in enhancing performance in teaching and learning. The study also revealed that gender and school location have significant effect on the students' achievement in English reading comprehension.

Recommendations

Given the findings of the study, the paper recommends the following.

- I. Teachers of English under training and those in service should be made to understand how to use the Interactive Teaching Methods effectively. This could be done via seminars, conferences and workshops to be organized by government, individuals and professional bodies.
- II. As students exposed to Interactive Teaching Method performed significantly, it is recommended for teachers to learn by themselves how to effectively use Interactive Teaching Method with a view to improving students' achievement in English reading comprehension.
- III. Teachers of English in rural schools should be encouraged to make themselves familiar with the characteristics of Interactive Teaching Methods and use them for classroom instruction with a view to improving their reading performance and comprehension achievement.

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