



Effects of gender and reciprocal peer-tutoring method on academic performance of students in business studies in Oyo, Oyo state, Nigeria

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Abstract

The study investigated the effects of gender and reciprocal peer-tutoring method on academic performance of students in business studies in Oyo, Oyo State, Nigeria. The study employed Quasi-experimental research design of non-equivalent control group. The population for the study was 7,962 public junior secondary schools (JSS II) business studies students. The sample for the study two junior secondary school students (made up of 76 students). The instrument titled Business Studies Academic Performance Test (BSAPT) was employed for data collection in the study. The instrument was validated by two business educators. The reliability of the instrument was established through Kuder Richads formula (KR-21) statistical method. The reliability coefficient of 0.79 was obtained. Two research questions were raised to guide the study while two null hypotheses were tested at 0.05 level of significance. Mean was used to answer the research questions while Analysis of Covariance (ANCOVA) was employed to test the null hypotheses at 0.05 level of significance. The study found that the students in experimental group exhibited significant higher post-test achievement scores than the students in control group. Also, there were low mean gains between male and female students' achievement scores in experimental group and the result of the analysis of hypothesis equally indicated that the difference in male and female mean achievement scores was not significant. The study concluded that that there was no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring. The study recommended that Professional association such as Association of Business Educators of Nigeria (ABEN) should create awareness about the use of Reciprocal Peer Tutoring in teaching business studies through seminars, workshops, conferences.

Keywords: gender, reciprocal peer-tutoring, academic performance, students, business studies

Introduction

Reciprocal peer-tutoring is one of the students-friendly method that has been in a few number of academic institutions all over the world owing to the fact that many teachers still stick to the use of old-age method of teaching which is regarded as traditional method. Traditional method is a method of teaching which involves teacher delivering teaching to the students when the students remain listening. It is a method that is teacher centered in nature as the teacher remains active while the students become passive in the course of teaching. Reciprocal peer-tutoring according to Henson, Hagos and Villapando (2009) [3] is a procedure by which students are assembled in groups of two or more and are trained to work together on a specific academic task. The students work together to prompt, monitor, and evaluate each other, while working toward group goals. A system of teaching where students in a group alternate roles in the course of teaching is regarded as reciprocal peer-tutoring (Mkpanang, 2016) [7]. Students could be taught using this method with no regard for their gender classification.

One of the most topical issues in the current debate all over the world has been that of gender differences and academic performance among students in schools. Certain cultures restrict particular gender to certain professions like farming, engineering and trading (Olatoye & Afuwape, 2004) [9]. Over the years, there has been a growing awareness of the role of women at home, in schools, and community in general (Abdu-Raheem, 2012) [11]. Certain vocations and professions have traditionally been regarded as men's (medicine, engineering, architecture) and

others as women's (nursing, catering, typing, and arts) (Oludipe, 2012) [10]. However, there have been conflicting findings on how gender influences academic performance. It seems the influence of gender varies according to school subjects. For instance, a study carried out by Kolawole (2007) [6] revealed that male students performed better than female students in the cognitive, affective and psychomotor skill performances; while Abubakar and Adegboyega (2012) [2] reported that gender was insignificant in the academic performance of students in Mathematics.

Who knows if method of teaching could have significant impact on the gender of students in schools with respect to their performances? Before the advent of educational technology in the teaching methods, the instructor is the transmitter and the learners are the receivers of the knowledge being transmitted. Hence, the need to determine the effects of gender and reciprocal peer-tutoring method on academic performance of students in business studies in Oyo, Oyo State, Nigeria.

Purpose of the Study

The purpose of this study was to investigate the effects of gender and reciprocal peer-tutoring method on academic performance of students in business studies in Oyo, Oyo State, Nigeria. Specifically the study sought to determine:

1. the differences in the post-test mean achievement scores of students taught business studies using reciprocal peer tutoring and those taught using conventional method.

- the differences between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring.

Research Questions

The following research questions guided the study:

- what are the differences in the post-test mean achievement scores of students taught business studies using reciprocal peer tutoring and the post-test mean achievement scores of students taught business studies using conventional method?
- what are the differences between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring?

Null Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

- there is no significant difference between the post-test mean achievement scores of students taught business studies using reciprocal peer tutoring and those taught using conventional method.
- there is no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring.

Method

Quasi-experimental research design of non-equivalent control group was employed in the study. The population of the study was 7,962 students in 67 public junior secondary schools (JSS II) in Oyo township. Out of this number of students 3,909 were males while 4,053 females.

The sample for the study was two junior secondary school students (made up of 76 students) that were drawn from Atiba Local Government Area of Oyo town. The instrument titled Business Studies Academic Performance Test (BSAPT) was employed for data collection in the study. The instrument was divided into two sections, section A sought to elicit bio data of the students while section B was made up of 40 multiple choice objective test items with five answer options. The instrument was validated by two business educators. The reliability of the instrument was established through Kuder Richads formula (KR-21) statistical method. The reliability coefficient of 0.79 was obtained. Thereafter, the instrument was administered on the students. The data collected through BSAPT were analyzed with using mean to answer the research questions while Analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance. In answering the research questions, performance of students were determined in terms of mean scores and mean gains. Excess of post test mean scores over pre test mean scores indicated mean gain and it could be low or high. In the test of null hypotheses using ANCOVA, p-value was used to determine the rejection or otherwise of the hypothesis. Null hypothesis was rejected if p-value was less than or equal to the level of significance (0.05). however, where p-value was higher than the level of significance (0.05), the null hypothesis was accepted.

Results

Research Question 1: What are the differences in the post-test mean achievement scores of students taught business studies

using conventional method and those taught using reciprocal peer tutoring?

Table 1: Mean Achievement scores of students in Business studies in both Experimental and Control Groups.

Group	N	Post-test \bar{x}_2	Meangain \bar{x}_g
Exp. Group	35	60.94	
			33.31
Control Group	41	27.63	

The Table 1 shows that post-test mean scores of Experimental and Control groups are 60.94 and 27.63 respectively. The mean gain arrived at was 33.31, this showed that the Experimental group had a higher post-test mean score than the Control group. Research Question 2: What are the differences between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring?

Table 2: mean achievement scores of male and female students in business studies in experimental group.

Gender	N	Post-test \bar{x}_2	Mean gain \bar{x}_g
Male	10	64.00	
			4.28
Female	25		59.72

In Table 2, it is revealed that post-test mean scores of male and female students in the experimental group were 64.00 and 59.72 respectively. The mean gain derived was 4.28; this showed that male students had higher post-test mean score than female students in the Experimental group.

Statistical Results of Test of Null Hypotheses

Null Hypothesis 1

There is no significant difference between the post-test mean achievement scores of students taught business studies using conventional method and those taught using reciprocal peer tutoring.

Table 3: Summary of ANCOVA of CM and RPT Students' Achievement Scores in Business Studies after the treatment.

source	Sum of Square	df	Mean Square	F	P-value	Decision
Groups	209428.549	1	209428.549	220.781	0.000	Rejected

The Table 3 shows that at 0.05 level of significance for 1 df, the p-value was 0.00 which was lower than the level of significance (0.05). The null hypothesis that there is no significant difference between the post-test mean achievement scores of students taught business studies using conventional method and those taught using reciprocal peer tutoring was therefore rejected. The outcome here showed that there was significant difference between the post-test mean achievement scores of students taught business studies using conventional method and those taught using reciprocal peer tutoring.

Null Hypothesis 2

There is no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring.

Table 4: Summary of ANCOVA of Male and Female RPT Students' Achievement Scores in Business Studies after the treatment.

source	Sum of Square	df	Mean Square	F	P-value	Decision
Gender	33.946	1	33.946	0.204	0.654	Not Rejected

The Table 4 shows that at 0.05 level of significance for 1 df, the p-value of 0.654 which was higher than the level of significance (0.05) was obtained. The null hypothesis that there is no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring was therefore not rejected. This showed that male and female students taught business studies using reciprocal peer tutoring were not significantly different in their post-test mean achievement scores.

Discussion of Results

The result of analysis of research question 1 in Table 1 showed that students taught business studies with RPT performed better than the students taught using conventional method at post-test and result of analysis of hypothesis 2 also reflected in Table 3 indicated that there was significant difference between the post-test mean achievement scores of students taught business studies using reciprocal peer tutoring instructional strategy and the post-test mean achievement scores of students taught business studies using conventional method. This result was in line with the findings of Suha Al-Hassan, (2003); Obiunu, (2008); Jibrin and Zayum, (2012); and Igboanugo, (2013). They pointed out that RPT had significant effect on achievement at post-test than conventional method.

Based on the result of research question 2 shown in Table 2, male and female students taught business studies with RPT had a very low mean gain in their post-test which means that both male and female students in the treatment group scored very closely at post-test while the findings from analysis of hypothesis 2 in Table 4 showed that there was statistical insignificance between the male and female achievement scores at post-test. This means that there is no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring instructional strategy.

The outcome of this study supports the findings of Obiunu (2008) which revealed that sex has no significant impact on the career decision making process of subjects in the treatment (RPT) group at post-test. Also, Abubakar and Adegboyega (2012)^[2] reported that gender was insignificant in the academic performance of students in Mathematics. In contradiction to the findings above, Kolawole (2007)^[6] revealed that male students performed better than female students in the cognitive, affective and psychomotor skill achievements.

Conclusion

Based on the findings of the study, it was concluded that there was significant difference between the post-test mean achievement scores of students taught business studies using conventional method and those taught using reciprocal peer tutoring. It was also found that there was no significant difference between the post-test mean achievement scores of male and female students taught business studies using reciprocal peer tutoring.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. Professional association such as Association of Business Educators of Nigeria (ABEN) should create awareness about the use of Reciprocal Peer Tutoring in teaching business studies through seminars, workshops, conferences.
2. Ministries of education, state school management boards, teaching service commission, education commissions, school principals and teachers should organize seminar, workshops, symposium and conferences for teachers on the use of Reciprocal Peer Tutoring to teach business subjects.

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