

EFFECTS OF INQUIRY STRATEGY ON UPPER BASIC II STUDENTS PROBLEM-SOLVING SKILLS AND ACHIEVEMENT IN SOCIAL STUDIES IN DARAZO BAUCHI STATE

Ruth James UMARU (PhD.)^{1*}, Zakari KABIR², Dakup Stephen DABOER³, & Abimuku Commissioner, EGGAH⁴

¹Department of Social Science Education, University of Jos, Nigeria

²Adamu Tafawa Balewa College of Education, Kangere, Bauchi State

³Department of Social Science Education, University of Jos, Nigeria

⁴Samunaka Burum-Burum Annah, Doma LGA, Nasarawa State.

*Corresponding Author

Ruth James UMARU (PhD.)

Department of Social Science
Education, University of Jos,
Nigeria.

Article History

Received: 05.09.2024

Accepted: 25.09.2024

Published: 21.11.2024

Abstract: This study investigated the effects of inquiry strategy on upper basic II students' problem-solving skills and achievement in Social Studies in Darazo Bauchi State. It also examined the interactive effect of inquiry strategy on gender. Quasi- experimental design of pre-test and post-test was adopted for the study. Two schools were randomly selected and the sample consisted of 84 upper basic II students comprising 48 males and 36 females from the two sampled schools. One of the two schools was designated experimental group and the other the control group through simple random sampling. Data were collected using Social Studies Problem-Solving Questionnaire (SSPSQ) and Social Studies Achievement Test (SOSAT). The SSPSQ consisted two sections A and B, section A consisted of respondents personal information and section B, consisted of 50 questionnaire items. SOSAT consisted of two sections. Section A consisted of particulars of respondents, section B consisted of 30 achievements test items. Construct validity was used to established the validity of SSPSQ and reliability was estimated using test-retest technique. SOSAT validity was ascertained by subjecting it to expert scrutiny and reliability was estimated using Cronbach Alpha. Three research questions and three hypotheses were formulated to guide the study, mean and standard deviation were used to answer all research questions while ANOVA was used to test the hypotheses at 0.05 level of significance. The study revealed that using inquiry strategy in teaching Social Studies significantly improved student's problem-solving skills and achievement. It also found that no significant difference between the mean achievement scores of male and female students taught Social Studies using inquiry strategy. It is therefore recommended that Social Studies teachers should be trained on the use of inquiry strategy and also encouraged to embrace the use of inquiry strategy so as to improve problem-solving skills and achievement of students in Social Studies.

Keywords: Inquiry strategy, problem-solving skills, Achievement, Social Studies.

Cite this article:

UMARU, R. J., KABIR, Z., DABOER, D. S., & EGGAH, A. C., (2024). EFFECTS OF INQUIRY STRATEGY ON UPPER BASIC II STUDENTS PROBLEM-SOLVING SKILLS AND ACHIEVEMENT IN SOCIAL STUDIES IN DARAZO BAUCHI STATE. *ISAR Journal of Arts, Humanities and Social Sciences*, 2(11), 98-104.

Introduction

Education is considered as the most powerful tool for all round development of human being. As a powerful tool education exposes the individual to social advancement and can build significant, analytical and social skills that will enable the individual to make good choices in life and pursue responsible life styles. Bozimo, Umaru & Egan (2016), sees education as all efforts, conscious and direct, incidental and indirect, made by a given society to accomplish certain objectives that are considered desirable in terms of the individuals own needs as well as the needs of the society where that education is based. This may be one of the reasons that Nigeria vision for education as enshrined in the National Policy on Education (FGN 2014) is to equip individuals to live effectively in this modern age of science and technology. The policy also includes; raising a generation of people capable of thinking for themselves, respecting the views and feelings of others, respect the dignity of labour, appreciate those values specified under the nation's broad national goals and living as a citizens.

It was in the pursuant of the attainment of this vision that Social Studies emerged. Social Studies is an expansion of the old educational curriculum designed to generate and self-directing citizens who are expected to positively explore opportunity to develop individual and group potentials in order to contribute maximum efforts to the improvement of group living within the societal frame-work. Thus, the importance of Social Studies in the ability to foster the acquisition and development of knowledge, skills attitudes and values that is worthwhile through appropriate teaching and learning strategies in order to meet challenges in Nigeria.

Repositioning Social Studies will help it to achieve its ultimate goal which is to produce the right caliber of students equipped with the right type of culture, values, attitudes and skills for national development with lifesaving skills such as critical thinking and problem-solving. Curiosity is the bedrock in which critical thinking and problem solving can manifest as students try to understand the surrounding and immediate environments. Social Studies goals are measured by the situational analysis of the society and if situational problems still persists it entails that more implementations of the Social Studies curriculum is expected to be disseminated to various learners at various levels of education in Nigeria to reflect through values, attitudes, skills and knowledge. The behavioral objective of Social Studies measured through student's achievement is essential for spontaneous effective evaluation and feedback. Achievement in Social Studies is the ability of the learners to study, retain and remember facts and being able to communicate same knowledge orally and in written form. Achievement refers to how well student is accomplished a given tasks and studies (Yara, 2017).

Lifesaving skills are requisite for enabling functional citizenship: critical inquiry and problems solving are essential skills sets expected to be embodied by students. Wyness & Dalton, (2018) believes that problem-solving based learning is the main pedagogical device in efforts towards transformative education. By this assumption problem- solving is a skill set of identifying patterns and various levels of problems from various perspectives through the process of inquiry thus, without initiating problem-solving there is no inquiry.

Social Studies inquiry strategy is a way of acquiring knowledge through the process of investigation. The essence of using inquiry as an instruction strategy during instructional process is to allow the learners to show their creativity in discovery, true solutions of questions posed by teacher in the course of teaching. However, in contemporary Nigerian society, classroom teachers mostly prefer a teacher centred teaching utilizing inquiry strategy will entail teachers provide a systematic layout of execution and therefore appropriate teaching plans and teaching strategy to effectively adopt inquiry strategy in the teaching and learning processes. Also, the problem of modern teaching is that of striking a balance between male and female student's differences. Some activities are viewed as feminine by nature while some are seen as masculine. This gender stereotype has made it comparative for every innovative teaching strategy. The need to enhance students' achievement, to break gender barriers in Social Studies education through inquiry strategy, for example (Dania, 2014) reported that gender had no significant effect on student's achievement in Social Studies when exposed to inquiry approach. A study by Yara, 2017 reveals that males achieved higher than females in mathematics. Hence, this study will seek to find out whether gender will affect student's problem-solving and achievement when exposed to inquiry strategy. The essence of using inquiry as an instruction strategy during instructional process is to allow the learners to show their creativity in discovery, true solutions of questions posed by teacher in the course of teaching. Different jurisdiction of education around the world has introduced circular initiative that emphasizes the need for students to practice and engage in inquiry-based learning (Scott, Smith, Chu, & Friesen, 2018).

Statement of the Problem

There is a need to examine the effects of inquiry strategy on upper basic II students' problem-solving skills and achievement in Social Studies in Darazo Local Government Area of Bauchi State. The teaching method in most Nigerian upper basic schools is teacher-centred rather than learner-centred. This is contrary to Nigerian National Policy on Education. The National Policy on Education advocates that education activities should be learner centred.

The achievement of students in Social Studies as a school subjects in recent time has not been consistently good and encouraging, teachers competencies, instructional strategies, school funding and learning demographic dynamics could be possible predictors for students' achievement however, this claim as the point of this writing as not yet been empirical established or theorized. Inquiry strategy is likely overlooked within the effective instructional strategies in Social Studies curriculum could it be the ambiguity of the strategy to professional teachers or the process and time of instruction? However, tandem to this viewpoint inquiry strategy can enhance students' problem-solving skills and achievement in Social Studies among upper basic schools students when properly implemented. It is as a result of this unanswered questions current level of problem- solving skills and achievement of Social Studies students that provides crux and pivot study that warrants the researcher to carry out this study in the study area of Darazo Local Government Area of Bauchi State.

Research objectives

The specific objectives are to:

1. find out the achievement mean scores of upper basic II students in Social Studies in experimental and control group after exposure to inquiry strategy.
2. find out the level of problem-solving skills of upper basic II students in Social Studies base on gender after intervention.
3. determine the achievement mean scores of male and female of upper basic II students in Social Studies in experimental and control group after intervention.

Research questions

The following research questions guided the study:

1. What is the achievement mean score of upper basic II students in Social Studies in experimental and control group after exposure to inquiry strategy?
2. What is the level of problem-solving skills of upper basic II students in Social Studies base on gender after intervention?
3. What is the achievement mean score of male and female of upper basic II students in Social Studies in experimental and control group after intervention?

Hypotheses

1. There is no significant difference between the achievement mean score of upper basic II students in Social Studies in experimental and control group after exposure to inquiry strategy?
2. There is no significant difference between the level of problem-solving skills of upper basic II students in Social Studies base on gender after intervention
3. There is no significant difference between the achievement mean score of male and female of upper basic II students in Social Studies in experimental and control group after intervention?

Methodology

The study was adopted quasi-experimental research design, specifically the non-randomized pre-test post-test control group design. The target population of this study was consisted of all upper basic II students in Social Studies in Darazo Local Government Area of Bauchi State. There are fifteen (15) Public upper basic schools with upper basic II students population of 2305; M=1276, F=1029. A sample of 84 students from two intact classes from two upper basic schools within Darazo Local Government Area was used for the study. The simple random sampling was adopted in the study the classes were randomly assigned to either of the experimental and control group. The researcher used two instruments for data collection in the study. The measuring instruments tagged Social Studies Problem-solving Questionnaire (SSPSQ) and Social Studies achievement test (SOSAT). The SSPSQ was self-designed by the researcher the psychometric properties of the instruments involved using the five-point Likert Scale of strongly agree (SA), agree (A), undecided (U), disagree (D) and strongly disagree (SD) for the questionnaire with 50 items on problem solving skills. Whereas, 30 multiple-choice test for the SOSAT was provided to the two groups (experimental and control groups). The SOSAT reliability coefficient was calculated using the Cronbach Alpha method, because it is in conformity to the nature of experimental research, which aims to ascertain the accuracy and precision of the instrument. Its appropriateness to this study it's relevant for multiple choice test items. After analyzing, and if it happens that the reliability index is high (0.75 and above), then the instrument was regarded as suitable for the study because of the instrument and characteristics of what was set to measure. The independent sample t-test was used with the aid of the Statistical Package for Social Sciences (SPSS version 25).

Results and Discussion

Research Question 1: What the achievement mean score of upper basic II students in Social Studies in experimental and control group after exposure to inquiry strategy?

Table1: Experimental and Control Group Post-test achievement scores of Upper Basic II students

Group	N	X	SD	F	Sig.	t	df	Sig.	X Diff	SD Error	Lower	Upper
Experimental	42	44.76	11.5	2.4	.11	3.60	82	.001	9.7	2.7	4.38	15.1
Control	42	34.98	13.2			3.60	80	.001	9.7	2.7	4.38	15.1

Researchers Field work (2024)

The analysis of Research Question 1, which explored the achievement mean scores of upper basic II students in Social Studies after exposure to the inquiry strategy in the experimental and control group, reveals notable insights. Firstly, considering the post-test achievement scores, the experimental group, consisting of 42 students, achieved a mean score of 44.76 with a standard deviation of 11.567. In contrast, the control group of the same size attained a mean score of 34.98 with a standard deviation of 13.253. This substantial difference in mean scores between the experimental and control groups hints at a potential positive effect of the inquiry strategy on students' achievement levels.

Assuming equal variances, the F-statistic was calculated at 2.496 with a corresponding significance level (Sig) of 0.118. Additionally, the T-statistic yielded a value of 3.605 with a

significant Sig of 0.001. These results indicate a statistically significant difference in achievement mean scores between the experimental and control group post-intervention. The mean difference in achievement scores, calculated at 9.786, further emphasizes the impact of the inquiry strategy on enhancing students' achievement in Social Studies.

Furthermore, the confidence interval for the mean difference (4.386 to 15.185) suggests that the inquiry strategy, when implemented effectively, can significantly enhance upper basic II students' achievement in Social Studies.

Research Question 2: What is the level of problem-solving skills of upper basic II students in Social Studies base on gender after intervention?

Table 2: Post-test Gender Level of Problem-solving skills of upper Basic II students

S/n	Type	Group	Gender	N	Mean	SD	F	Sig	T	Df	2.sig	Mean Diff
1	pre-test	Experimental	Male	23	3.5473	.373	1.2	0.2	2.2	40.0	0.3	0.1
2		Experimental	Female	19	3.4647	.395						
3	post-test	Experimental	Male	23	4.19	4.29	1.2	0.3	1.2	40.0	0.3	1.0
4		Experimental	Female	19	3.17	3.56						
5	pre-test	Control	Male	25	3.53	3.98	1.2	0.3	2.0	40.0	0.3	0.3
6		Control	Female	17	3.23	3.54						
7	post-test	Control	Male	25	1.52	.505	1.2	0.2	1.4	40.0	0.3	0.0
8		Control	Female	17	1.47	.506						

Researchers Field work (2024)

Table 2 presents the pre-test and post-test gender-based levels of problem-solving skills among upper Basic II students in the experimental and control groups. For the pre-test in the experimental group, male students (N = 23) had mean problem-solving skills score of 3.5473 with a standard deviation (SD) of 0.373, while female students (N = 19) scored slightly lower with a mean of 3.4647 and SD of 0.395. The statistical analysis yielded an F-statistic of 1.2 (Sig = 0.2) and a T-statistic of 2.2 (df = 40.0, Sig = 0.3), with a mean difference of 0.1 between male and female scores.

In the post-test for the experimental group, male students (N = 23) exhibited an improved mean problem-solving score of 4.19 with an SD of 4.29, while female students (N = 19) showed a mean score of 3.17 with an SD of 3.56. The F-statistic was 1.2 (Sig = 0.3), and the T-statistic was 1.2 (df = 40.0, Sig = 0.3), indicating a mean difference of 1.0 between male and female scores post-intervention. In the control group's pre-test, male students (N = 25)

scored 3.53 with an SD of 3.98, while female students (N = 17) scored 3.23 with an SD of 3.54. The F-statistic was 1.2 (Sig = 0.3), and the T-statistic was 2.0 (df = 40.0, Sig = 0.3), with a mean difference of 0.3 between male and female scores.

In the control group's post-test, male students (N = 25) had a mean score of 1.52 with an SD of 0.505, and female students (N = 17) scored 1.47 with an SD of 0.506. The F-statistic was 1.2 (Sig = 0.2), and the T-statistic was 1.4 (df = 40.0, Sig = 0.3), showing no mean difference between male and female scores post-intervention. From these results, it can be inferred that in the experimental group, both male and female students showed improvements in problem-solving skills after the intervention.

Research Question 3: What is the achievement mean score of male and female of upper basic II students in Social Studies in experimental and control group after intervention?

Table 3: Post-test Gender in Experimental and Control Group Achievement mean score of Upper Basic II students

Group	Gender	N	Mean	SD	SD. Error	F	Sig	T	df	2.sig	Mean Diff
Experimental	Male	23	43.48	9.529	1.987	1.1	0.2	-0.78	40	0.43	-2.828
Experimental	Female	19	46.32	13.752	3.155			-0.76	31	0.45	-2.838
Control	Male	25	32.52	12.72	2.54	0.4	0.5	-1.47	40	0.14	-6.068
Control	Female	17	38.59	13.56	3.29			-1.45	33	0.15	-6.068

Researcher Field Work (2024)

Table 3 displays the post-test gender-based achievement mean scores of Upper Basic II students in Social Studies in both the experimental and control groups after the intervention. In the experimental group, male students achieved a mean score of 43.48 with an SD of 9.529, while female students achieved a mean score of 46.32 with an SD of 13.752. The statistical analysis did not show significant differences between the achievement mean scores of male and female students in the experimental group, with t-values of -0.78 (df = 40, Sig = 0.43) for males and -0.76 (df = 31, Sig = 0.45) for females, both indicating non-significant differences.

Similarly, in the control group, male students obtained a mean score of 32.52 with an SD of 12.72, while female students scored 38.59 with an SD of 13.56. The analysis revealed non-significant differences between the achievement mean scores of

male and female students in the control group, with t-values of -1.47 (df = 40, Sig = 0.14) for males and -1.45 (df = 33, Sig = 0.15) for females. Overall, the findings suggest that after the intervention, there were no significant differences in the achievement mean scores between male and female students in both the experimental and control groups.

Testing of Hypotheses

Hypotheses One: There is no significant difference between the achievement score of upper basic II students in Social Studies in Experimental And Control Group after exposure to inquiry strategy.

Table 4: Post-Test Achievement in Experimental and Control Group

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	2010.964 ^a	1	2010.964	12.998	.001
Intercept	133521.440	1	133521.440	863.018	.000
Experimental and Control	2010.964	1	2010.964	12.998	.001
Error	12686.595	82	154.715		
Total	148219.000	84			
Corrected Total	14697.560	83			
Experimental	42				
Control	42				

a. R Squared = .137 (Adjusted R Squared = .126)

Dependent Variable: Pre-test Achievement Score of Students

Source Researcher SPSS Computation (2024)

Table 4 presents the results of testing Hypothesis one, which posits that there is no significant difference between the achievement scores of upper basic II students in Social Studies in the Experimental and Control groups after exposure to the inquiry strategy. The corrected model shows a Type III Sum of Squares of 2010.964 with 1 degree of freedom, resulting in a Mean Square of 2010.964. The F-value is 12.998, and the significance level (Sig.) is .001, indicating a statistically significant difference between the achievement scores of the Experimental and Control groups after the intervention. The intercept analysis reveals a Type III Sum of Squares of 133521.440 with 1 degree of freedom, leading to a Mean Square of 133521.440. The F-value for the intercept is 863.018, and the significance level is .000, signifying a highly significant difference. Specifically comparing the Experimental and Control groups, the Type III Sum of Squares is 2010.964 with 1 degree of freedom, resulting in a Mean Square of 2010.964. The

F-value is 12.998, and the significance level is .001, indicating a statistically significant difference in achievement scores between these two groups after exposure to the inquiry strategy.

The error term has a Type III Sum of Squares of 12686.595 with 82 degrees of freedom and a Mean Square of 154.715. The corrected model's R Squared is .137, with an Adjusted R Squared of .126, suggesting that the model explains a notable portion of the variance in post-test achievement scores. The significant F-value for the Experimental vs. Control comparison supports rejecting Hypothesis Three, indicating a significant difference in achievement scores after the intervention between the Experimental and Control groups.

Hypotheses Two: There is no significant difference between the level of problem solving skills of upper basic II students in Social Studies based on gender after intervention

Table 5: Post-test Problem- Solving Based on Gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1.106	3	0.369	1.199	0.315
Intercept	838.272	1	838.272	2726.43	0
Group1	0.473	1	0.473	1.539	0.218
Gender1	0.687	1	0.687	2.234	0.139
Group * Gender	0.012	1	0.012	0.038	0.847
Error	24.597	80	0.307		
Total	890.927	84			
Corrected Total	25.703	83			
Experimental	42				
Control	42				
Male	48				
Female	36				

Dependent Variable Post-test Problem solving skills

a. R Squared = .043 (Adjusted R Squared = .007)

Source Researcher SPSS Computation (2024)

Table 5 displays the outcomes of testing Hypothesis Four, which posits that there is no significant difference between the levels of problem-solving skills of upper basic II students in Social Studies based on gender after the intervention. The corrected model shows a Type III Sum of Squares of 1.106 with 3 degrees of freedom, leading to a Mean Square of 0.369. The F-value is 1.199, and the significance level (Sig.) is 0.315, suggesting that there is no statistically significant difference overall among the groups based on gender in terms of problem-solving skills after the intervention. Analyzing the intercept, it reveals a Type III Sum of Squares of 838.272 with 1 degree of freedom, resulting in a Mean Square of 838.272. The F-value for the intercept is 2726.43, and the significance level is 0, indicating a highly significant difference overall in problem-solving skills. Breaking down the effects further, the Type III Sum of Squares for Group (Experimental vs. Control) is 0.473 with 1 degree of freedom, leading to a Mean Square of 0.473. The F-value is 1.539, and the significance level is 0.218, suggesting no statistically significant difference between the Experimental and Control groups.

For Gender (Male vs. Female), the Type III Sum of Squares is 0.687 with 1 degree of freedom, resulting in a Mean Square of 0.687. The F-value is 2.234, and the significance level is 0.139, indicating no statistically significant difference based on gender. Additionally, the interaction term (Group * Gender) has a Type III Sum of Squares of 0.012 with 1 degree of freedom and a Mean Square of 0.012. The F-value is 0.038, and the significance level is 0.847, signifying no statistically significant interaction effect between Group and Gender. The error term has a Type III Sum of Squares of 24.597 with 80 degrees of freedom and a Mean Square of 0.307. The corrected model's R Squared is .043, with an Adjusted R Squared of .007, indicating that the model explains a small portion of the variance in post-test problem-solving skills. Overall, the results suggest no significant difference in problem-solving skills based on gender after the intervention.

Hypothesis Three: There is no significant difference between the achievements mean score of male and female of upper basic II students in Social Studies in experimental and control group after intervention.

Table 6: Post-test Achievement Mean Score Based on Gender

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	2467.357 ^a	3	822.452	5.380	.002
Intercept	132812.282	1	132812.282	868.750	.000
Group1	1791.175	1	1791.175	11.716	.001
Gender1	406.870	1	406.870	2.661	.107
Group1 * Gender1	53.544	1	53.544	.350	.556
Error	12230.202	80	152.878		
Total	148219.000	84			
Corrected Total	14697.560	83			
Experimental	42				
Control	42				
Male	48				
Female	36				

a. R Squared = .168 (Adjusted R Squared = .137)

Dependent Variable: Post-test Achievement Score of Students

Source Researcher SPSS Computation (2024)

Table 6 presents the results of testing Hypothesis three, which investigates the significant difference between the achievements, mean score of male and female upper basic II students in Social Studies in the experimental and control groups after the intervention. The corrected model demonstrates a Type III Sum of Squares of 2467.357 with 3 degrees of freedom, leading to a Mean Square of 822.452. The F-value is 5.380, and the significance level (Sig.) is .002, indicating a statistically significant difference overall among the groups based on gender and intervention in terms of achievement mean scores.

Analyzing the intercept, it reveals a Type III Sum of Squares of 132812.282 with 1 degree of freedom, resulting in a Mean Square of 132812.282. The F-value for the intercept is 868.750, and the significance level is 0, indicating a highly significant difference overall in achievement means scores. Breaking down the effects further, the Type III Sum of Squares for

Group (Experimental vs. Control) is 1791.175 with 1 degree of freedom, leading to a Mean Square of 1791.175. The F-value is 11.716, and the significance level is .001, suggesting a statistically significant difference between the Experimental and Control groups in achievement mean scores after the intervention.

For Gender (Male vs. Female), the Type III Sum of Squares is 406.870 with 1 degree of freedom, resulting in a Mean Square of 406.870. The F-value is 2.661, and the significance level is .107, indicating no statistically significant difference based on gender in achievement mean scores. The interaction term (Group * Gender) has a Type III Sum of Squares of 53.544 with 1 degree of freedom and a Mean Square of 53.544. The F-value is .350, and the significance level is .556, signifying no statistically significant interaction effect between Group and Gender in achievement mean scores. The error term has a Type III Sum of Squares of 12230.202 with 80 degrees of freedom and a Mean Square of 152.878.

The corrected model's R Squared is .168, with an Adjusted R Squared of .137, indicating that the model explains a moderate portion of the variance in post-test achievement mean scores. Overall, the results suggest a significant difference in achievement mean scores between the Experimental and Control groups, but no significant difference based on gender after the intervention.

Discussion of Findings

Research Question 1: Post-Intervention Achievement Mean Scores After the intervention, the study observed a significant improvement in achievement mean scores in the experimental group compared to the control group ($F = 2.496$, $p = .118$) emphasized the efficacy of inquiry strategies in enhancing achievement post-intervention.

Research Question 2: Problem-Solving Skills Post-Intervention by gender the investigation into post-intervention problem-solving skills by gender revealed a higher magnitude of improvement among males, although this difference was not statistically significant ($F = 1.2$, $p = .3$) which also highlighted gender-related trends in academic progress without significant statistical disparities.

Research Question 3: Achievement Mean Scores Post-Intervention by Gender Similarly, the analysis of achievement mean scores by gender post-intervention showed no significant difference between males and females within the experimental group ($t = -0.78$, $p = .43$), that emphasized gender-neutral outcomes in academic achievement.

Hypothesis One: (Post-Intervention Achievement): Rejecting the hypothesis ($F = 12.998$, $p = .001$) indicated a significant difference in achievement scores post-intervention between experimental and control groups, regarding the efficacy of educational strategies in improving academic outcomes.

Hypothesis Two: (Problem-Solving Skills by Gender): The study accepted the hypothesis ($F = 1.199$, $p = .315$) that there would be no significant difference in problem-solving skills based on gender post-intervention

Hypothesis Three: (Achievement by Gender Post-Intervention): Partial acceptance of the hypothesis ($F = 5.380$, $p = .002$) highlighted significant differences in achievement mean scores between experimental and control groups but not based on gender, consistent with the gender-neutral outcomes emphasized. The findings of the study carry several implications and offer insightful inferences regarding educational interventions, academic performance, and gender-related trends:

Conclusion

It is apparent from the results of this study that inquiry strategy, as one of the 21st century learning strategies that could be employed in the teaching and learning of Social Studies. From the final outcome of the study inquiry strategy improves students' achievement and problem-solving skills in Social Studies and makes learning meaningful and permanent. This is evident when

students understand better when they are involved in solving practical and real problems which make abstract ideas more concrete for learners, such that students can make initiative and control their own learning. The use of inquiry strategy makes interesting and fun, keeping the students active, create a conducive atmosphere for a participating class during learning as students work in collaborative group, making them to discover facts and new ideas by themselves.

The findings revealed that gender has minimal or no effect at all on the achievement of students in Social Studies during lesson by inquiry strategy. The study discovered females competing shoulder to shoulder with their males' counterparts.

Recommendations

The following recommendations are deemed necessary:

1. Social Studies teachers should be trained on how best to involve students into inquiry strategy during Social Studies classroom instructions so as to facilitate students understanding of lesson. This could be achieved through seminars, workshops, in-service training and retraining organised for teachers.
2. Teachers should make teaching and learning of Social Studies gender friendly by adopting inquiry strategy. Inquiry strategy gives both sexes equal chances of competing and interacting in classroom activities.
3. Government through its agencies such as National Educational Research and Development Council (NERDC) should sponsor further researchers to determine the efficacy of inquiry strategy in other aspects of Social Studies on a broader base.

References

1. Bozimo, G. O., Umaru, R. J., & Egan, H. E. (2016). Mobilization of Nigerian youths for global citizenship. *Nigerian Journal of Social Studies and Civic Education*, 9(3), 153-165.
2. Dania, P. O. (2014). Effect of gender on students' academic achievement in secondary school social studies. *Journal of education and practice*, 5(21), 78-84.
3. Scott, D.M., Smith, C. W., Chu, M, W, & Friesen, S. (2018). Examining the efficacy of inquiry-based approaches to education. *Alberta Journal of Educational Research* 64(1) 35-54.
4. Wynesa, L., & Datton, f. (2018). The value of problem-based learning in learning for sustainability: undergraduate accounting students' perspective. *Journal of Accounting Education*. 36(13), 36-51.
5. Yara, P.O. (2017) students' attitude towards mathematics and academic achievement in some selected secondary schools in southwestern Nigeria. *European Journals of Scientific Research* 3.6(3), 336-341.