

EFFECT OF COLLABORATIVE LEARNING STRATEGY ON PUPILS' INTEREST IN READING COMPREHENSION IN NSUKKA LOCAL GOVERNMENT EDUCATION AREA: GENDER AS A MODERATING VARIABLE

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Abstract

This study investigated the effect of collaborative learning strategy on pupils' interest in reading comprehension in Nsukka Local Government Education Area. The study also examined gender as a moderating variable. Three research questions and three null hypotheses guided the study. The study adopted a quasi-experimental design, specifically a non-equivalent pretest-posttest control group design. The population comprised 2,307 primary 4 pupils in 114 public primary schools in Nsukka Local Government Education Area during the 2023/2024 academic session. The sample size of 58 (36 males and 22 females) primary four pupils from two intact classes was drawn using simple random sampling technique. The instrument for data collection was the Pupils' Interest in Reading Comprehension Inventory (PIRCI), which yielded a reliability coefficient of 0.84 using Cronbach Alpha. Mean and standard deviation were used to answer research questions, while ANCOVA was used to test hypotheses at 0.05 level of significance. The findings revealed that collaborative learning strategy significantly enhanced pupils' interest in reading comprehension. Gender had no significant main effect on pupils' interest, while the interaction effect of strategy and gender was significant. The study implies that collaborative learning strategy is effective in promoting pupils' interest in reading comprehension. It was recommended that English language teachers adopt collaborative learning strategies, while the government should organize regular in-service training to acquaint the teachers with effective teaching strategies.

Keywords: collaborative learning strategy, gender, primary school education, pupils' interest, reading comprehension

Introduction

Reading comprehension is a fundamental skill which forms the basis for academic success across subjects in primary education. It is a basic skill that helps learners to function maximally in knowledge search and its acquisition. Reading without understanding or comprehending is a mere echo of sound which does not make impact in one's knowledge, that is to say that meaningful reading is accompanied with comprehension. Reading comprehension, according to Adimora, Nwokenna and Omeje (2017), involves the process of understanding, decoding the writer's words and then using background knowledge to construct an approximate understanding of the writer's message. In the same light, Butterfuss and Kendeou (2020) defined reading comprehension as the process of extracting information with intentions of constructing meaning through one's interaction with written material. Operationally, reading comprehension is a process of joining words together and observing punctuation to make meaning out of a written material in order to gain knowledge about different subjects. According to these views, meaning resides in the intentional, problem-solving, thinking processes of the reader that occur during an interchange with a text. The success or failure of any learning lies on clear understanding of text. Despite the importance of reading comprehension, pupils' interest in reading comprehension appears to be poor (Ukoha, 2015).

Interest is an inner motivator that triggers desire towards a set objective. It is an important variable in the learning process because when one is interested in learning, one will have the urge and eagerness to pursue knowledge in the dimensions of one's interest. Chukwurah (2022) noted that interest is the feeling of intentness or curiosity over something. In the context of education, interest is defined as emotionally oriented behavioural trait which determines a student's urge and vigor in tackling educational programs. The study reported a downward trend of interest in reading among secondary school students. The lack of interest is visible in the weak reading culture and poor engagement with comprehension tasks (Nwangwu, 2019; Ulobethel, 2018). When pupils lack interest, they are less likely to participate fully in reading activities, and this may eventually affect their achievement. Interest itself is a strong motivational factor in learning because it shapes learners' willingness to engage, persist, and invest effort in academic tasks. So many factors have been attributed to possible causes of poor interest in reading among learners. One major factor associated with poor interest in learning is teaching strategy in used, the commonly used teaching strategy is conventional method -chalk-and-talk methods which have been attributed to less engagement for pupils, leading to passiveness in learning which according to KAHE, 2025 is not effective in building interest and resilience in learners. In this study collaborative learning strategy was examined as an alternative teaching strategy in relation to pupils' interest.

Collaborative learning strategy is one of the identified stimulating forums that facilitate learners' participation in learning activities, especially those with learning difficulties. Collaborative learning strategy involves pupils working in pairs or small groups to discuss concepts, or find solutions to problems (Rao, 2019). Collaborative learning is a situation in which two or more people learn or attempt to learn something together (Adolphus 2013). More specifically, collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and take on asymmetry roles (Olanrewaju, 2019). Collaborative learning refers to methodologies and environments in which learners engage in a common task where each individual depends on and is accountable to each other. It is a learning strategy which involves groups of learners working together to solve a problem, complete a task, or create a product. Collaborative learning involves pupils working together in pairs or small groups to solve problems, discuss ideas, and construct understanding (Adolphus, Alamina, & Aderonmu, 2013; Rao, 2019). In this study, the think-pair-share model of collaborative learning was adopted because it creates opportunities for participation, peer interaction, and reflection. Another crucial factor which can affect the effectiveness of a teaching strategy and pupils' academic achievement is gender.

Gender is another variable that can affect human self-carriage and dispositions towards task and life skill acquisitions. Lindqvist, Sendén and Renström (2021) defined gender as a range of characteristics distinguishing male and female, particularly in the masculine and feminine attributes assigned to them. Gender was also examined in this study because previous findings on gender and reading-related outcomes have been inconsistent. While some studies suggest that females perform better in language-related tasks, others report male advantage or no significant difference at all (Eidswick, 2014; Van Der Slik, Van Hout, & Schepens, 2015; Ekwuobi, 2019; Nwangwu, 2019). This study therefore, investigated whether gender significantly influenced pupils' interest in reading comprehension and whether it moderated the effect of collaborative learning.

Purpose of the Study

The purpose of the study was to investigate the effect of collaborative learning strategy on pupils' interest in reading comprehension. Specifically, the study investigated the:

1. effect of collaborative learning strategy on pupils' mean interest scores in English reading comprehension using collaborative learning
2. influence of gender on pupils mean interest scores in English reading comprehension
3. Interaction effect of collaborative learning strategy and gender on pupils' mean interest scores in reading comprehension

Research Questions

The following research questions guided the study:

1. What is the effect of collaborative learning strategy on pupils' mean interest scores in English reading comprehension using collaborative learning?
2. What is the influence of gender on pupils' mean interest scores in English reading comprehension?
3. What is the interaction effect of strategy and gender on pupils' mean interest scores in English reading comprehension

Hypotheses

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

- H₀₁:** There is no significant difference in the mean interest score in English reading comprehension of pupils exposed to collaborative learning strategy and those exposed to conventional method
- H₀₂:** There is no significant influence of gender on pupils' mean interest scores in English reading comprehension.
- H₀₃:** There is no significant interaction effect of strategy and gender on mean interest scores of pupils in English reading comprehension.

Methods

The study adopted a pre-test, post-test quasi-experimental research design. The study was conducted in Nsukka Local Government Area in Enugu State. The population of the study was 2307 primary four pupils in 114 public primary schools in the area. The sample size was 58 pupils (36 males and 22 females) primary four pupils drawn from two intact classes using simple random sampling technique. Three research questions and three hypotheses guided the study. The instrument for data collection was Pupils' Interest in Reading Comprehension Inventory (PIRCI), which was validated by three experts from the faculty of education. The reliability index of the instrument was 0.84 using Cronbach Alpha. The collected data was analysed using mean and standard deviation to answer research question while ANCOVA was used to test hypotheses at 0.05 level of significance.

Results

Table 1: Mean interest scores of pupils taught Reading comprehension using collaborative learning strategy and those taught using conventional method

Group	Strategy	N	Pre-test		Post-test		Adjusted Mean
			Mea	SD	Mea	SD	
			n		n		
Experiment	Collaborative	33	2.31	0.25	3.25	0.31	3.26
Control	Conventional	25	2.36	0.20	2.53	0.19	2.53

From Table 1, the experimental group taught with collaborative learning strategy had a pretest mean interest score of (M = 2.31, SD = 0.25). The control group taught with conventional chalk and talk strategy had a pretest mean interest score of (M = 2.36, SD = 0.20). It could be observed that the two groups were almost at the same level of interest prior

to the experiment. However, the posttest mean interest score for the experimental group is ($M = 3.25$, $SD = 0.31$), while that of control group is ($M = 2.53$, $SD = 0.19$). The posttest SDs of 0.31 and 0.19 showed that collaborative group scores were more varied than those of the conventional group. The experimental group had an adjusted mean of 3.26 while the control group had 2.53. This showed that collaborative strategy enhanced students' interest ratings in reading comprehension more than the conventional method.

HO₁: There is no significant difference in the mean interest scores in English reading comprehension of pupils exposed to collaborative learning strategy and those exposed to conventional method.

Table 2: Analysis of Covariance of the mean interest scores in reading comprehension

Source	Type III Sum of Squares	Df	Mean Square ⁶⁵	F	Sig.	Partial Eta Squared	Rmk
Corrected Model	7.274 ^a	4	1.819	25.206	.000	.655	
Intercept	5.034	1	5.034	69.779	.000	.568	
PreInterest	.015	1	.015	.206	.652	.004	
Method	6.909	1	6.909	95.765	.000	.644	S
Gender	.004	1	.004	.060	.807	.001	NS
Method * Gender	.031	1	.031	.423	.518	.008	NS
Error	3.824	53	.072				
Total	512.200	58					
Corrected Total	11.098	57					

S = Significant ($p < 0.05$); NS = Not Significant ($p < 0.05$)

Table 2 showed that the main effect of strategy on mean interest scores of pupils in reading comprehension is $F(1, 53) = 95.765$, $p = 0.000$, Eta .644. Since this level of significance (0.000) is less than 0.05 level of significance at which the hypothesis was tested, the null hypothesis is rejected. The effect size (partial Eta squared) value is 0.644 (64.4%) indicating a large effect size. Therefore, there is a significant difference in the mean interest score in reading comprehension of pupils exposed to collaborative learning strategy and those exposed to conventional method.

Research question 2: What is the influence of gender on pupils' mean interest scores in English reading comprehension?

Table 3: Mean interest scores of male and female pupils in Reading comprehension

Gender	N	Pre-test		Post-test		Adjusted Mean
		Mean	SD	Mean	SD	
Male	36	2.34	0.18	2.96	0.42	2.89
Female	22	2.30	0.30	2.91	0.49	2.90

The data from Table 3 showed that male pupils had a pretest mean interest score of ($M = 2.34$, $SD = 0.18$) while female counterparts had a pretest mean interest scores of ($M = 2.30$, $SD = 0.30$) This indicated that both male and female students were almost at the same level of interest prior to the experiment. The posttest mean interest score for male pupils is ($M = 2.96$, $SD = 0.42$) with adjusted mean of 2.89, while that of female counterparts is ($M = 2.91$, $SD = 0.49$) with adjusted mean of 2.90. The SDs indicated that the scores are within close range. The adjusted mean scores showed that female pupils' interest score was faintly higher than that of their male counterparts.

HO₂: There is no significant influence on the mean interest scores of pupils in reading English comprehension.

The data on Table 2 showed that the main effect of gender on mean interest scores of pupils in reading comprehension is $F(1, 53) = 0.060$, $p = 0.807$, $\eta^2 = .001$. Since this level of significance (0.807) is greater than 0.05 level of significance at which the hypothesis was tested, the null hypothesis is upheld. The effect size (partial Eta squared) value is 0.001 (0.1%) indicating almost no effect size. Therefore, gender does not significantly influence the mean interest ratings of pupils in reading comprehension.

Research question three: What is the interaction effect of strategy and gender on pupils' interest ratings in English reading comprehension?

Table 4: Mean interest scores of male and female pupils taught Reading comprehension using collaborative learning strategy and Conventional method

Strategy	Gender	N	Pre-test		Post-test		Adjusted Mean
			Mean	SD	Mean	SD	
Collaborative	Male	22	2.31	0.19	3.22	0.30	3.22
	Female	11	2.30	0.35	3.29	0.34	3.29
Conventional	Male	14	2.40	0.15	2.54	0.14	2.55
	Female	11	2.31	0.26	2.52	0.25	2.52

The data from table 4 showed that male pupils in collaborative group had a pretest mean interest scores of ($M = 2.31$, $SD = 0.19$) while their female counterparts in the same group had a pretest mean interest score of ($M = 2.30$, $SD = 0.35$). The male pupils in conventional method group had a pretest mean interest score of ($M = 2.40$, $SD = 0.15$) while their female counterparts in the same group had a pretest mean interest score ($M = 2.31$, $SD = 0.26$). It could be observed that the groups were almost at the same level of interest prior to the experiment. The posttest mean interest score of male pupils in the collaborative group is ($M = 3.22$, $SD = 0.30$) and adjusted mean of 3.22, while female counterparts in the same group is ($M = 3.29$, $SD = 0.34$) with an adjusted mean of 3.29. The posttest mean interest score of male students in the conventional group is ($M = 2.54$, $SD = 0.14$) with an adjusted mean of 2.55, while the female counterparts in the same group is ($M = 2.52$, $SD = 0.25$) with an adjusted mean of 2.52. The low SDs indicated that the scores are at close range. The scores showed that female students' adjusted mean was higher than that of their male counterparts for collaborative group but slightly lower in conventional group. This showed there was no interaction between strategies and gender on the mean interest scores of pupils in reading comprehension.

HO₃: There is no significant interaction effect of strategy and gender on mean interest scores of pupils in English reading comprehension.

The data on Table 2 showed that the interaction effect of strategy and gender on mean interest scores of pupils in reading comprehension is $F(1, 53) = 0.518$, $p = 0.518$, $\eta^2 = .008$. Since this level of significance (0.518) is greater than 0.05 level of significance at which the hypothesis was tested, the null hypothesis is upheld. The effect size (partial Eta squared) value is 0.008 (0.8%), indicating almost no effect size. Therefore, there is no significant interaction effect of strategies and gender on mean interest scores of pupils in reading comprehension.

Discussion

The findings of this study showed that collaborative learning significantly improved pupils' interest in reading comprehension. This suggests that when pupils are actively involved in lesson activities, allowed to think independently, share ideas with peers, and participate in group discussion, they become more interested in reading tasks. This agrees with the view that interactive and collaborative learning stimulate pupils' motivation and

engagement and can enhance both interest and performance (Gillies & Ashman, 2017; Kumar, Savur, & Sahin, 2020). The result also supports the interaction theory of language acquisition by Bruner (1983), which holds that children acquire language and related skills better through regular interaction with teachers and peers. Collaborative learning creates this kind of interactive environment, thereby making reading comprehension more engaging and meaningful to learners.

Another important finding was that gender did not significantly influence pupils' interest in reading comprehension. This means that both male and female pupils responded similarly to the collaborative learning experience. The finding agrees with earlier studies such as Nwangwu (2019), Ekwuobi (2019), and Nwafor, Tsoho, and Aliyu (2023), which also reported no significant gender difference in pupils' interest under collaborative or reading-related instructional conditions. Furthermore, the interaction effect of strategy and gender was not significant. This implies that collaborative learning was beneficial across gender categories and did not favour one group over the other. In practical terms, the strategy appears inclusive and suitable for mixed-gender classrooms.

Conclusion

Based on the findings of this study, the researcher concludes that collaborative learning strategy is a more effective method of teaching than conventional talk and chalk method in promoting pupils' interest in reading comprehension. Hence, collaborative learning strategy can be used to teach reading comprehension. The researcher also concludes that gender has no significant influence on pupils' interest in reading comprehension. The researcher concludes that collaborative learning strategy is effective and suitable for enhancing pupils' interest in reading comprehension without gender sensitivity since it produced positive effects in reading comprehension across all genders. Hence, teachers are encouraged to adopt this strategy in teaching reading comprehension and other subjects in schools.

Recommendations

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

1. English language teachers should employ collaborative learning strategy in teaching reading comprehension.
2. The government should hold in-service teachers training to acquaint the teachers with the tenets of the use of collaborative learning strategy in reading comprehension.
3. Curriculum planners should include collaborative learning strategy in the English language curriculum document for teaching reading comprehension.
4. Textbook authors should provide collaborative learning strategy activities as a guide for teachers and pupils in their textbooks.

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