

Relationship Between Collaborative Learning, Competitive Learning Styles and School Adjustment among Secondary School Students in South East States

Udeochu Ifeyinwa Uzunma¹, Prof. Mrs. Nnenna D. Mkpa², Ogbuokiri N. P. (Ph.D)³

Department Of Psychological Foundations, Faculty of Education, Abia State University Uturu.

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ABSTRACT

The study investigated relationship between learning styles and secondary school students' adjustments in Southeast States of Nigeria. Two research questions were raised to guide the study and two corresponding hypotheses were formulated and tested at 0.05 level of significance. The study employed a correlational survey design. The population of the study consisted of 78, 653 senior secondary school II students (SS2) from which a sample of the 1,300 students was selected using appropriate sample techniques. Two instruments were utilized for data collection - the Learning Style Questionnaire (LSQ) and Secondary School Adjustment Questionnaire (SAQ). The instruments were validated by three experts - one from Measurement and Evaluation Unit and two from Guidance and Counselling Unit, all from the Department of Psychological Foundations, Uturu, just as reliability coefficient values of 0.88 and 0.89 were obtained using Pearson Product Moment Correlation. The research questions and hypotheses were equally answered and tested respectively using Linear regression. The findings revealed that there was a significant positive relationship between collaborative and competitive learning styles and school adjustment among the students. Based on these findings, it was concluded that collaborative and competitive learning styles are very helpful in students' level of school adjustment. The study therefore recommended that teachers, educationist and Ministry of Education should prioritize the creation of supportive learning environment, effective instructional strategies and guidance services to enhance students' school adjustment, rather than focusing solely on learning style preferences.

Keywords: Collaborative Learning, Competitive Learning, Learning Style and School Adjustment.

INTRODUCTION

School adjustment is a crucial aspect of adolescent's educational experience as it determines how well students adapt socially, emotionally and academically within the school environment. Learning styles, which refer to the preferred ways students acquire and process information, are believed to influence how effectively students cope with school demands. However, there is uncertainty in existing literature regarding the extent to which different learning styles, particularly collaborative and competitive learning styles, relate to student's school adjustment.

Adolescence is a critical developmental stage characterized by rapid physical cognitive, emotional and social changes. It typically spans the ages of 10 to 19 years, a period which individuals experience significant transitions that influence their behaviors, identify formation and interaction with their environment (World Health Organization, 2023). At this stage, students in secondary schools are expected to adapt to several key changes - physical changes, puberty, body growth and hormonal changes; thereby, increasing academic demands, social expectations and institutional structures. These developmental changes make adolescents particularly sensitive to factors that influence their adjustment within the school environment.

School adjustment refers to the extent which students are able to cope with academic tasks, maintain positive relationships and adhere to school rules and expectations. It is a multidimensional construct that includes academic adjustment performance and engagement in learning task, social adjustment interaction with peers as well as teachers and emotional adjustment which include students' feeling of belonging, stability and well-being (Ezenwafor & Ementa, 2016; Wang 2021). Effective school adjustment is essential for students' academic

success and overall development, especially during adolescence when individuals are navigating complex development challenges.

Grasha (2021) opined that one of the factors often linked to students' adjustment is their learning style. Learning style refers to the preferred way individuals perceive process, and respond to information. Among the various learning styles identified in literature, collaborative and competitive learning styles have received considerable attention.

Collaborative learning style involves students working together, sharing ideas and supporting one another to achieve common academic goals while competitive learning style emphasizes individual achievement and performance in comparison with peers (Fleming, 2022). In classroom settings, these learning styles may influence how students interact with their peers, responds to instructional strategies and cope with academic challenges. For instance, students with collaborative learning style may find it easier to build social connections and adjust socially within the school environment whereas those with competitive learning style may focus more on personal achievement which can either enhance or hinder their adjustment depending on the context.

Fielder and Silverman (2021) opined that learning styles extend beyond the class and become relevant to adjustment outcomes, including what can be described as school or work adjustment. Adjustment in this content refers to an individual's ability to effectively cope with task demands, social expectations and emotional pressures within a structured environments such as school. Recent studies emphasize that adjustment in this wise is closely linked with learning behaviours, motivation and psychological readiness, indicating that, how students learn can shape how they adapt

The relationship between learning styles and school adjustment can be explained through their underlying styles' influence on students' level of cognitive engagement, motivational orientation, self-regulation and interaction patterns in the classroom. These elements correspond directly with the core dimensions of school adjustment. For instance, cognitive engagement and self-regulation enhance academic adjustment by improving students' ability to cope with classroom participation. Similarly motivational orientation contributes to confidence and interest ((Fleming, 2022).

Collaborative learning style has gained increasing attention in contemporary educational research as an interactive and socially driven approach to learning. It refers to a pattern in which learners actively engage with peers through shared tasks, mutual support and collective problem-solving processes. Recent studies emphasize that collaborative learning is not merely a grouping strategy but structured form of engagement that enhances participation, critical thinking and interpersonal development (Gregore, 2023).

Collaboration learning style is an educational approach that emphasizes group work, interaction and team-work that share knowledge construction. It is a dynamic and engaging way to learn, where individuals come together to explore ideas, solve problems, create projects, interacts with peers to discuss ideas and solutions, have mutual respect, valuing each participant's input and fostering a supportive environment (Dunn, 2021). It is a shared collective aim where each member strives to achieve, enhance accountability and increase motivation.

The collaborative learning style enhances learning outcomes, promotes active engagement in learning as well as leads to improved comprehension, retention and development of interpersonal skills for a greater academic achievement. Likewise, participants develop effective communication using digital tools to facilitate group work, structure negotiation in group activities, help in conflict resolution when there are challenging problems in a particular task and teamwork (Cassidy, 2021).

Furthermore, collaborative learning ensured as a result of peers learning in groups. It involves students working in pairs or small groups to discuss concepts or find solutions to problems. This happens after a teacher introduces a course material to the students and instructs them to do the learning themselves. Such students like sharing their ideas together and studying with their teachers and classmates (Awujo & Ekechukwu, 2015). They expand their knowledge in group and team work. They also prefer lectures with small group discussions and group projects.

In the classroom context, collaborative learning style operates through key behavioral and interactional indices such as active peer interaction, shared responsibility for learning tasks, group participation and independence among students (Gregore, 2023). These elements encourage learners to exchange ideas, negotiate meaning and build knowledge collectively. As a result, students develop not only cognitive skills but all social competences that are essential for functioning effectively within the school environment.

The relevance of collaborative learning style to school adjustment becomes evident when these indices are examined in relation to the of school dimensions adjustment. Through continuous peer interaction and group participation, students are more likely to develop positive relationships. Also, independence promotes a sense of belonging and emotional support which contribute to emotional adjustment by reducing feelings of isolation and anxiety.

Competitive learning style on the other hand, represents a distinct mode of engagement characterized by strong achievement orientation and performance-driven behavior. Students who adopt this style often engage in peer comparison and strive for individual success, which can enhance academic adjustment through increased effort and persistence. However, such tendencies may also create challenges for social and emotional adjustment as excessive comparison can lead to anxiety, reduced cooperation and weaker peer relationships. This suggests that while competitive learning style may support certain aspects of adjustment, particularly academic performance, it may simultaneously constrain others, especially social integration and emotional stability (Obikoya, 2021; Pashler et al, 2019).

Rubin and Host (2017) opined that learning is an educational approach which emphasizes individual achievement and competition among students. This style is often characterized by a focus on winning, achieving high grades and out-performing peers. It emphasizes on students competing with each other to achieve the best results. When a winner emerges, he or she receives rewards, recognition and praise. Students are ranked based on their academic performance. Their performance in competitions, quizzes or contests is to demonstrate their knowledge and skills and crave for recognition. The students are graded based on their relative performance compared to their peers and want to be remembered by their success in the classroom.

The benefits of competitive learning style motivate students to work harder and strive for excellence. If there is a conducive competitive environment, it can drive students to improve their performance and achieve better results. Competitive learning style can help students develop skills such as time management, goal-setting and problem-solving (Dumont & Instance, 2022). Likewise, there are disadvantages of competitive learning style. For instance, excessive competition can lead to stress, anxiety and burn out. Also, there may be over emphasis on competition which could produce unhealthy comparisons with their peers as well as hinder collaboration and team work.

Several researchers have examined the relationship between collaborative, competitive learning style and school adjustment among secondary school students with varying outcomes. Authors such as Cassidy (2021) and Adewale (2019) found out that collaborative learning styles enhance students' participation and interpersonal relationships, which may support school adjustment, although the relationship was statistically significant. Similarly, Roslan (2021) reported that differences in learning styles did not significantly predict students' social and emotional adjustment. Furthermore, Okoro and Nwosu (2019) observed that while collaborative activities promote peer interaction, learning styles alone do not significantly influence school environment and teacher support play more prominent roles.

Obikoya (2021) opined that despite the theoretical connection between learning styles and school adjustment, empirical findings remain inconsistent, particularly within the Nigeria context. This study therefore investigates the relationship between collaborative, competitive learning styles and school adjustment among Senior Secondary students in the Five Eastern States of Nigeria. Also, to the best of the researcher's knowledge, little or no work has been done between collaboration, competitive learning styles and school adjustment among senior secondary school in South East Nigeria. Hence the gap the present study intends to fill.

Purpose of the Study

The purpose of this study is to examine the relationship between collaborative, competitive learning styles and school adjustment among senior secondary school students in the five Eastern States of Nigeria. Specifically, the study intends to;

1. Ascertain the relationship between collaborative and school adjustment of secondary school students in South East Zone of Nigeria.
2. Find out the relationship between competitive and school adjustment of secondary school students in South East Zone.

Research Questions

The following research questions guided the study:

1. What is the relationship between collaborative learning style and school adjustment among senior secondary school students?
2. What is the relationship between competitive learning style and school adjustment among senior secondary school students?

Hypotheses

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

1. There is no significant relationship between collaborative learning style and school adjustment among senior secondary school students.
2. There is no significant relationship between competitive learning style and school adjustment among senior secondary school students.

METHOD

The study adopted a correlational research design to examine the relationship between collaborative, competitive learning styles and school adjustment among senior secondary school students. The population of study comprised 78,653 Senior Secondary II students from the five Eastern State of Nigeria. A sample of 1,300 students was selected using a multi-stage sampling technique. Two instruments were used for data collection; the Learning Style Questionnaire (LSQ) and the School Adjustment Questionnaire (SAQ). They were divided into three sections of A, B and C. Section A contained statements that were used to elicit information on the personal data of the respondents (bio-data) such as names school, class and age. Section B contained the first instrument, that is, Learning Style Questionnaire (LSQ), adapted from Boyatzis with a reliability coefficient of 0.88. It was made up of two sub-sections A and B, which were used to elicit information on collaborative, competitive learning styles and school adjustment respectively. On the whole, the instrument contained ten (10) items. All the items were positively keyed and structured based on the four-point Likert rating scale with numerical values assigned to them as Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE). Section C contained the second instrument that was used by the researcher named, School Adjustment Questionnaire (SAQ). Its reliability was established to be 0.89. This questionnaire was designed to find out how learners adjust in schools. It was a ten (10) item inventory. Each of the items on the instrument was structured based on the four-point Likert rating scale with numerical values assigned to them as Very High Extent (VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE). The respondents were expected to tick the options which applied to them. The instruments were validated by three experts two from Measurement and Evaluation and one from Guidance and Counselling, all from the Department of Psychological Foundations, Abia State University, Uturu.

RESULTS

Research Question One.

What is the relationship between collaborative learning style and school adjustment of secondary school students in South East States, Nigeria?

The analysis and the results of the research question is summarized in the table below:

Table 1: Linear Regression to Explore the Relationship Between Collaborative Learning Style and School Adjustment of Secondary School Students

Model	r	r Square	r square x 100	Adjusted r Square	Remarks
1	.802 ^a	.643	64.3%	.642	High Extent
a. Predictors: (Constant), Collaborative Learning Style					

Table 1 presents a summary of simple linear regression analysis of the relationship between collaborative learning style and school adjustment of secondary school students in South-East States. The result showed an R-value of 0.802, indicating a high positive relationship between the variables. Further, the table shows the R-squared of 0.802, indicating that the coefficient of determination is 64.3%. This implies that a collaborative learning style has a high extent of relationship with the school adjustment of secondary school students in the South-East, Nigeria.

Research Question Two

What is the relationship between Competitive learning style and school adjustment in secondary school students in South East States, Nigeria?

Table 2: Linear Regression to Explore the Relationship Between Competitive Learning Style and School Adjustment of Secondary School Students

Model	R	r Square	r square x 100	Adjusted R Square	Remarks
1	.659 ^a	.560	56.00%	.559	High Extent
a. Predictors: (Constant), Competitive Learning Style					

Table 2 presents the simple linear regression analysis of the relationship between competitive learning style and school adjustment of secondary school students in South-east Nigeria. The result showed an R-value of .659 and an R-Square value of .560. The result also showed the coefficient of determination to be $r^2 \times 100 = 56.0\%$ which implies 56.0% of school adjustment among secondary school students in South East State, Nigeria. Hence, there is a high extent of relationship between the variables.

Testing for the Hypotheses

Hypothesis One

Competitive learning style does not significantly relate to school adjustment of secondary school students in South East States, Nigeria.

Table 3: t-test Statistic Associated with Regression Analysis of Significant Relationship Between Collaborative Learning Style and School Adjustment

(Constant)		B	Std. Error	Df	B	t-cal	t-crit	Sig.
1		2.930	.083				1.96	
	Collaborative Learning Style	-.294	.029	1299	.802	35.482		0.00
a. Collaborative learning style: School Adjustment								

Data presented on Table 3 shows the summary of t-statistic associated with Regression Analysis which assumed that collaborative learning style does not significantly relate to school adjustment of secondary school students in South East State, Nigeria. The result indicated difference to be 1299 (β , .802 and calculated t-value of 35.482 and a t-crit of 1.96 with a p value of 0.00, that is the result of the null hypothesis at 0.05 level of significance. Since the p value is less than the criterion significance level, this therefore leads to the rejection of the null hypothesis and an alternate hypothesis established thus, collaborative learning style does significantly relate to school adjustment of secondary school students in South East State, Nigeria.

Hypothesis Two

Competitive learning style does not significantly relate to school adjustment of secondary school students in South East States, Nigeria.

Table 4: t-test Statistic Associated with Regression Analysis of Significant Relationship Between Competitive Learning Style and School Adjustment

(Constant)		B	Std. Error	Df	B	t-cal	t-crit	Sig.
1		1.256	.083				1.96	
	Competitive Learning Style	.363	.028	1299	.633	15.172		0.00
a. Competitive learning style: School Adjustment								

Data presented on Table 4 shows the summary of t-statistic associated with Regression Analysis which assumed that competitive learning style does not significant relate to school adjustment of secondary students in South East State, Nigeria. The result indicated difference to be 1299 (β , .633 and calculated t-value of 15.172 and a t-crit of 1.96 with a p value of 0.00, that is the result of the null hypothesis at 0.05 level of significance. Since the p-value is less than the criterion significance level, this therefore leads to the rejection of the null hypothesis and an alternate hypothesis established thus, competitive learning style significantly relates to school adjustment of secondary students in South East State, Nigeria.

SUMMARY OF FINDINGS

Based on the research questions and hypotheses, the following summaries were made:

1. Collaborative learning style has a positive relationship with the school adjustment of secondary school students.
2. Competitive learning style has a positive relationship with the school adjustment of the secondary school students

DISCUSSION OF FINDINGS

Collaborative learning style has a high extent of relationship with the school adjustment of secondary school students.

The findings from the research question one which investigated the extent of relationship between collaborative learning style and school adjustment among secondary school students in South East State, Nigeria, found that collaborative learning style has a high extent of relationship with the school adjustment of secondary school students. The finding from the study agrees with that of Cassidy (2021) whose study investigated effect of collaborative learning style on secondary school students' academic achievement in Orumba south local government. Results indicated that collaborative learning improves secondary students' achievement and interest in Biology compared to conventional learning styles. Collaborative learning significantly influences achievement scores and interest levels, with no notable gender differences. While females show a greater increase in interest with collaborative learning, there is no significant interaction effect, suggesting universal benefits. This is because through their collaborative in class and other school activities, they learn faster how things are done, which reflects in their positive academic performance. Further, the study was in agreement with that of Adewale (2019) who investigated the effect of collaborative approach of learning on students' academic performance in mathematics in Anambra State. Results of the research showed that students in the collaborative approach group achieved more than the conventional approach group. Gender had no significant interaction effect on the performance of students based on any learning approach. Hence, collaborative learning style has a high relationship with the school adjustment of secondary school students.

There is a high extent of relationship between competitive learning style and school adjustment among secondary school students.

The finding from research question two which investigated the relationship between competitive learning style and school adjustment among secondary school students in South East State, Nigeria, found that there is a high extent relationship between competitive learning style and school adjustment among secondary school students. The finding from the study agrees with that of Obikoya (2021) who investigated the effects of collaborative and competitive learning strategies on Statistics achievement of secondary school students in Gwagwalada, Abuja. The results showed that there was a significant difference between the achievement of students taught with Collaborative and competitive learning strategies and their counterpart in the control group. Collaborative and competitive learning strategies were found to be gender friendly as both male and female students performed indifferently. Again, the finding agrees with that of Pashler et al (2019) who investigated the correlation between learning styles and students' academic achievement in the field of cost accounting among federal universities located in the South-South region of Nigeria. The findings revealed a significant positive association between the two variables. Additionally, the analysis underscores the significant positive relationship between the competitive learning approach and students' academic This shows that competitive learning style significantly relates with school adjustment among secondary school students. As the students are focused on winning, achieving high grades and out-performing their peers, it elicits their best results and adjusting to the school faster through competitive learning style.

CONCLUSION

It is concluded that learning styles such as collaborative and competitive help students in adjusting properly in secondary schools and assist in their academic achievements. Teachers will do well to understand the different learning styles of students and teach them accordingly.

Educational Implications of the Findings

Based on the findings, the following educational implications were drawn:

1. If educators and school counsellors could recognize collaborative and competitive learning style early, efforts can be made to help students utilize their strengths, develop more proactive learning habits and coping strategies, particularly in stressful or demanding academic situations.
2. There is need to encourage active student engagement in classroom activities. Teachers could create inclusive and stimulating learning environments that promote open discussion, inquiry and expression. This can improve not just academic outcomes but also students' emotional and social adjustment within the school setting.

RECOMMENDATIONS

The following recommendations were made based on the findings of the study:

1. Counsellors and teachers should identify students with collaborative and competitive tendencies early and provide supportive conditions such as mentoring, motivation-building and positive reinforcement. Also, schools should create safe and encouraging learning environments that foster student engagement.
2. Teachers should design lessons that encourage student participation through interactive strategies such as debates, Q & A sessions and open discussions. Additionally, curriculum planners should incorporate participatory activities that engage students as active agents in their learning process.

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