

CONCEPTION OF COLLABORATIVE LEARNING IN SECONDARY SCHOOLS: RELATIONSHIPS WITH SELF-EFFICACY BELIEF AND ACADEMIC ACHIEVEMENT

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ABSTRACT

This article explored collaborative learning of senior secondary 2 students at Obollo-Afor Education Zone Enugu State in Nigeria. Correlational design was adopted for the study. It focused on the relationship between collaborative learning, students' self-efficacy and academic achievement. Specifically, the article aims at finding the relationship between collaborative learning and students' self-efficacy and the relationship between collaborative learning and academic achievement. The article focused on throwing light on the significance of collaborative learning on self-efficacy and academic achievement of senior secondary 2 students. Data from the correlational design indicated the relevance of collaborative learning. Significant relationship was found between collaborative learning on students and their self-efficacy belief. Significant relationship exists between collaborative learning on students and their academic achievement. The study concluded by outlining some recommendations on how collaborative learning will be applied among students.

KEYWORDS: Collaborative Learning, Self-Efficacy Belief, Academic Achievement, Education, Learning

INTRODUCTION

Learning is a process which causes a change in behaviour of an individual. This change in behaviour results from experience or interaction between the individual and the environment. Human learning is a process of adaptation which may lead to the adjustment to the demands of life. Learning may be observed in the form of development or change of attitudes, interests, adjustments, skills, values, beliefs, cognitive structure, mannerism and gestures (Ngwoke, 2010). Ngwoke further states that learning is an active, constructive process: to learn new information, ideas or skills, students have to work actively with themselves in purposeful ways. They need to integrate this new material with what they already know or use it to reorganize what they thought they knew.

Achievement according to Maria and George (2006) is regarded as the individual attainment in a given task. The given task of a student is the academic achievement. Academic achievement has been identified as the yardstick to measure the level and the rate of the development of any society, especially in the contemporary world of fast moving scientific and technological advancement (Chrouinard & Roy, 2008). Academic achievement is the hope of continuity in education, technology and all round transformation (Deci & Ryan, 2002). Nenty (2001) and George (2008) argue that despite the place of academic achievement in the success of human endeavour, it has been consistently poor among students at all levels of education in Nigeria.

What students know as the outcome of their learning is academic achievement. Achievement can be defined as a measure of learner's level of knowledge, skills or performance (Ugwuda, 2008). Academic achievement is the knowledge

attained at school, college or university through interaction in class, in a laboratory, library or field work which outcome is commonly measured through examinations or continuous assessment. According to Scales and Roehckepartain (2003), academic achievement in educational system is the overall academic performance of a student in the school which is measured within the term and the end of the school session. Academic achievement therefore, reflects the outcome of education and the extent to which a student, teacher or institution has achieved their educational goals (Ward, Stoker & Murray-Ward, 2006). According to Leidner & Jarvenpaa (2003), academic achievement is the goal or outcome of education obtained through persistent interactive group learning (high self-efficacy beliefs). In the contemporary world, improvement in the students' achievements is marked as the foremost objective of school reforms. Consequent upon this, educational activities are geared towards ensuring that students achieve mastery of educational objectives (Ward, Stoker & Murray-ward, 2006) which outcome reflects the extent to which students have achieved the educational objectives. For instance, students' academic achievement annual results from West African Examination Council (WAEC) revealed poor achievements.

The Chief Examiner's reports of WAEC of Senior Secondary School Certificate Examination (SSCE), 2010-2012 showed that less than forty percent (40 %) of the registered students credited all the subjects including the core subjects of English language and Mathematics, while about sixty percent (60 %) either had ordinary pass or failure grades each year. This consistent poor academic achievement has led to the deterioration of students' self-efficacy beliefs. Probably, low self-efficacy belief among students could account for the fast spreading of Examination malpractices and mass failure in the West African School Certificate Examination in our Country Nigeria (Osunde & Aduwa-Ogiegbaen, 2005). This problem has attracted unpredictable concern from parents, teachers and even the government, the students not left out. The search to curbing these probably might call for collaborative or group learning.

Collaborative learning is a situation in which two or more people learn or attempt to learn something together (Dillenbourg, 2009). Collaborative learning is a variety of approaches in education that involves joint efforts by students or students and teachers. This is commonly illustrated when group of students work together to search for understanding, meaning, solution or to create an artifact or product of their learning (Chiu, 2004). Collaborative learning is based on the model that knowledge can be created within a population where members actively interact by sharing experiences and taking on asymmetry roles (Mitnik, Recabarren Nussbaum & Soto, 2009). It involves methodologies with grouping students who become involved in social interaction. Bruffee (2004) opined that Collaborative learning is the grouping and pairing of students for the purpose of achieving academic goals, and this working together is called social interaction. It involves methodologies and environments in which learners engage in a common task where each individual depends on and is accountable to each other, including both face-to face conversations (Chiu, 2008). Smith & MacGregor (2002) posit that Collaborative learning is used as an umbrella term for a variety of approaches in education that involve joint intellectual effort by students or students and teachers commonly illustrated when groups of students work together to search for understanding, meaning, or to crate an artifact or product of their learning.

Collaborative learning is operationally defined by the researchers as the type of learning where group of students learn together, contribute ideas solve problems together and encourage one another to be persistent in other to arrive at educational goals.

Forms of collaborative learning include; Collaborative Networked Learning (CNL), Computer-Supported Collaborative Learning (CSCL) and Learning Management System (LMS) (Findley, 2001). Findley explained that Collaborative Networked Learning (CNL) is a form of learning for directed adult learners. The Collaborative Networked Learning (CNL) occurs via electronic dialogue between self-directed co-learners and learners and experts. Learners share a common purpose, depend upon each other and are accountable to each other for their success. Computer-Supported Collaborative Learning (CSCL) is a relatively new educational paradigm within collaborative learning whereby technology is used in a learning environment to help mediate and support group interactions in a collaborative learning context (Chen and Chiu, 2008). Computer-Supported Collaborative Learning involves the use of technology to control and monitor interaction, regulate tasks, rules and roles as well as mediate the acquisition of new knowledge (Mitnik, Recabarren, Nussbaum, & Soto, 2009). Learning Management Systems (LMS) refer to a collection of tools which learners can use to assist, or be assisted by others (Naone, 2007). Such tools include Virtual Classrooms, Chat, Discussion threads and Application sharing.

Collaborative learning helps to develop resources that empower learners by encouraging them to work with every other learner in the class in a playful, but purposeful way. It also nurtures emotional and social development and makes learners confident in sharing what they know (Totten, Sills Digby and Russ, 2001). These authors indicate that collaborative learning makes complex ideas accessible by presenting them in concrete, visual and tactile ways, and this is achieved by abstract thinking during discussions. By breaking ideas down and presenting them as case study with lots of details and with examples. In effect, this learning strategy encourages exploratory talk which helps to move the learner from social language to academic talk and to confident writing. Offorma (2000) indicated the need to evolve teaching strategy that involves the students in gathering, arranging and presenting related information about the content of the lesson, giving them the opportunity to ask questions, express themselves, criticize issues and cooperate among themselves as necessary measures for attaining learning goals. In this study, collaborative learning is seen as a type of learning that is interactive in nature, where groups of students learn together, encourage one another to be persistent in academic pursuits and accomplish tasks. To achieve this, persistence (high self-efficacy belief) is needed.

In contemporary Nigerian society, there is the need for people to work in collaboration with others for a successful outcome. Collaborative learning is the act of working with another person or a group of people that will help others to arrive at a conclusion or produce something or solve a task successfully (Lawwil, 2004).

Self-efficacy is one of the measures on one's own competence to complete tasks and goals. Self-efficacy belief is one's capabilities to organize and execute the course of action required in producing given attainments (Margols & McCabe, 2006). Self-efficacy belief is concerned with judgments about personal capability in a specific domain and individual expectation about capability for performance in future situations. Self-efficacy plays a crucial role in an individual's educational achievement. Hence it reflects students' judgment of their capability to accomplish specific tasks. It is a crucial variable in the learning and social cognitive and motor skills, strategies and behavior (Aremu and Ogbuagu, 2005).

It affects every area of human endeavour, by determining the beliefs a person holds regarding the power to affect situations. Thus, strongly influencing both the power a person actually has to face challenges competently. Self-efficacy enables students to put forth a high degree of effort in order to meet their commitments and attribute failure to things which

are in their control, rather than blaming external factors. Self-efficacious students also recover quickly from setbacks and ultimately are likely to achieve their personal goals (Anita, 2003).

Self-efficacy has two types. They are, high and low self-efficacy belief (Zimmerman, 2005). He maintained that high self-efficacy belief is positive because it involves high task persistence while low self-efficacy involves people with low aspirations and low task persistence. According to Margolis and McCabe (2006), students with low self-efficacy beliefs cannot be successful. Hence they are less likely to make concerted and extended efforts and may consider challenging tasks as threats that can be avoided. Furthermore, such students with low self-efficacy beliefs according to Margolis and McCabe (2006) have low aspirations which may result in disappointing academic performance and becoming part of self-fulfilling feedback cycle.

Researchers have consistently found that students who adopt mastery goals tend to have higher self-efficacy, positive patterns of learning such as paying more attention in class and attaining higher achievement (Pajares, Britner's and Valiante, 2000). Therefore, in order to bring about high achievement among the students, high task persistence and high self-efficacy are very important. Students with high self-efficacy often take on more challenging tasks, put in more effort, persist in the face of difficulty, and use strategies to make learning meaningful because when students believe in themselves, they may be more likely to develop enabling goals that when executed will facilitate the accomplishing of the task (Hidi and Haraekiewicz, 2000). When students perceive tasks to be beyond their capabilities, they will develop low self-efficacy and have little expectations of success that may lead to increased anxiety, less productivity, and decreased engagement (Winne, 2007). Self-efficacy is the belief one has in one's ability to perform a task or not, therefore, any teaching-learning strategy that can influence self-efficacy should not be jettisoned. For the researcher, self-efficacy belief is the confidence one has through social interactions in learning that one can accomplish educational tasks. This belief is irrespective of gender (male or female).

Describing individuals as having a perception of their capabilities that impact and help to determine choices of activities and persistence in reaching a goal is referred to as self-efficacy. Self-efficacy as defined by Bandura (1986) is "peoples' judgment of their capabilities to organize and execute courses of action required to attain designated types of performance". He maintained that self-efficacy is concerned not with the skills one has but with judgment of what one possesses. It is the individual's beliefs about being able to carry out the necessary actions to achieve a desired result that determine the impact (Bandura, 1997). For example, students' English language grades will be based largely on their ability to do assignments. Students who lack composition skills will be demoralized as they realize their weakness in composition (Pajares, 2002).

Peoples' self-efficacy seems to determine their general sense of control over the condition of life. Therefore, self-efficacy belief is associated with active attempts to manipulate and cope with situations as they arise. For Worchel, Cooper, Goethals & Olson (2000), self-efficacy belief is defined as the extent to which individuals believe they have the skills and opportunities necessary to perform an action. They see it as the confidence in one's ability to produce positive outcomes or outputs. In this situation, if students really have the perception and belief that they can do or perform successfully better in their learning and discussing in a group, then they are operating with self-efficacy. Self-efficacy is the belief that individuals can influence their behaviours or personalities positively (Martin and Oshone, 2002). This implies that peoples' self-efficacy make a lot of contributions in influencing their success or their failure, depending on

one's perception of oneself. be high or low. Students with high self-efficacy are more likely to challenge themselves with difficult tasks and will be intrinsically motivated. In support of this, Bandura (1986) posited that people with high levels of self-efficacy, try challenging tasks more frequently and persists longer. On the other hand, low self-efficacy occurs when students are weighed down with their incapability's. Students with low self-efficacy have long aspirations which may result in withdrawal after a long time. However, self-efficacy is a students' judgment of his/her own capability to organize and perform in study related courses of action necessary to reach selected types of academic performance such as to pass an examination or learn a course content.

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Self-efficacy is the belief that individuals can influence their behaviours or personalities positively (Martin and Osborne, (2002). This implies that people's self-efficacy make a lot of contribution in influencing their success or failure, depending on one's perception of oneself. Self-efficacy refers to one's belief in his or her ability to successfully take action and perform a specific task. Self-efficacy differs from each behaviour and situations and depends on many factors, such as the individual's level of self-esteem and past experiences (Insel & Roth, 2004).

Individuals with high self-efficacy belief usually apply internal dialogue in order to move on with life positively and to increase confidence in their capability to cope and make changes for better outcome. Low self-efficacy may make individuals lose focus and concentration on seeking solution or relief to their problems (Turk and Monarch, 2002). When students are taught right learning strategy, and they encourage one another, their self-efficacy belief will be high and success will not be farfetched. In essence self-efficacy is the confidence one has through social interactions in learning that one can accomplish educational task

Theoretical Framework

Social learning theory as propounded by Bandura (1977) states that learning is through observing and imitating a model. According to the theorist, most people learn through example either intentionally or accidentally. New patterns of behaviour can be acquired through watching the performance of others. A model's behaviour may serve to elicit the performance of similar responses already in the observers' repertoire. The model's behaviour may influence the performance of socially prescribed or deviant behaviour.

The individual's inhibition about performing the behaviour may be strengthened or weakened by watching the model either punished or rewarded. Bandura and Walters (1963) argued that behaviour cannot be changed only by direct reinforcement but also by watching the model being rewarded or punished. The theorists posited that learning through observation cannot be so simple because the link between stimulus and response is wide. The theorists affirmed that observational learning is governed by four interrelated mediation mechanisms. These mediators are, attention processes, retention processes, motor reproduction process and incentive and motivational processes.

Bandura and Walters (1963) pointed out that there is a great difference between acquired and performance behaviours. The fact that a person does not actively perform certain behaviour does not mean that the person has not learnt those behaviours. A person can store up observed actions mentally and produce them at an appropriate time later. One of the reasons why our performance is not equivalent to our acquisition is that people have learnt from observing the consequences of others behaviours. For instance, people have observed the consequences of the people that break the law and that prevents most people from violating the law.

Self-efficacy theory originated from social cognitive theory by Bandura (1986). According to this theory, self-efficacy is the belief that one has the power to produce the effect of completing a given task or activities related to that competency as well as the expectation that one can master a situation, and produce a positive outcome. Bandura's self-efficacy theory stresses that those who believe that they have the capabilities to be successful make greater and lengthier attempts to achieve the desired outcome.

Bandura's self-efficacy theory distinguishes between outcome expectancy and efficacy expectation, and this goes to show that the environment can control the outcome expectancy. It is efficacy expectation that predicates an individual's undertaking of specific action, and if the individual perceives the ability to successfully handle the task, he/she is more likely to engage with the task. Once engaged, the positive perception of self-efficacy and the positive outcome expectancy will drive the individual to persist to completion. Upon the successful completion of the task, the individual's positive self-efficacy will be affirmed or strengthened.

Consequently, those who have weak or low self-efficacy expectation and outcome expectancy will allow fear and apprehension of obstacle to turn them away. Should the individual with a weak self perception attempt the task, this person is more likely to surrender in the presence of difficulties or obstacles, ultimately resulting in a lower self-efficacy. From the above one can see that this may lead to an individual's poor achievement in the school, whereas the expectancy is for the students to get high academic achievement.

REVIEW OF LITERATURE

An experimental study was carried out by Obeta (2008) on the effect of peer collaboration on primary school pupils' achievement and self-efficacy in mathematics.. A sample of 165 primary five pupils was used for the study. The hypothesis testing revealed that peer collaboration technique significantly affects the Mathematics achievement of the primary school pupils in Mathematics as their performance was enhanced. The increase in achievement of the pupils was attributed to the peer collaborative strategy used which involves active participation of the learners.

A study was carried out by Adaoye (2002) on the effect of peer collaboration on senior secondary school students' interest and achievement in Physics in Nigeria. A sample of 105 senior secondary school students out of 2,050 was used. The study involved five research questions using a t-test to answer them and five research hypotheses to be tested using Analysis of covariance, at 0.05 level of significance. A pretest-posttest experimental design which involves experimental and control groups were used. Physics Achievement Test (PAT) constructed by the researcher was used to measure Physics achievement of the students. The result of the peer collaboration strategy indicated that achievement of the students in Physics increased after nine weeks of peer collaboration. The study further found that interaction patterns among students promote group cohesion, peer support, social interaction and cognitive achievement. The present study intends to find out

the relationship between collaborative learning and self-efficacy of the students as well as their academic achievement, and correlational design will be used.

Torubelli (2006) carried out a study on locus of control, self-efficacy and emotional intelligence as correlates of academic achievement among adolescents in senior secondary schools using 600 adolescents from four senior secondary schools. Four research questions and four null hypotheses guided the study: mean and standard deviation were used to answer the research questions while multiple regression analysis was used to test the research hypotheses at $\alpha=0.05$ levels of significance. It was found that emotional intelligence significantly correlates with improvement in academic achievement of the participants. The result of this study, however, found that the significant effect of self-efficacy on an individuals' academic achievement is not significant considering the fact that self-efficacy deals with the level of confidence individuals have in their ability to execute certain courses of action or achieve specific outcomes especially in relation to academic achievement. In this study, there may not be significant relationship between collaborative learning and students' self-efficacy.

Bhatnagar and Sharma's (2002) investigation was designed to study the relationship between parental education and academic achievement of pupils. Academic achievement was assessed using examination scores and Udaipareek and Trivendi's test of socio-economic status was used to assess parental education. The sample consisted of 1st, 5th, 9th, 10th, and 11th class pupils in semi setting in Rajasthan. Three research questions and three null hypotheses guided the study. Mean and standard deviation were used to answer the research questions while t-test was used to test the hypotheses at 0.05 levels of significance. Results indicated that the children whose parents were educated performed at a significantly higher academic level than those who did not have school education. Therefore, in this study collaborative learning may significantly make the academic achievement of students to be higher.

Igbo (2011) carried out a study on influence of retraining programme on primary school teachers' self-efficacy and social support in Ebonyi state of Nigeria using descriptive survey design. 383 primary school teachers who attended universal Basic Education (UBEC) retraining programme were used and the instruments used in data collection are developed by the researcher to elicit information on the influence of retaining programme on teacher's self-efficacy and social support in teaching. Two research questions and two null hypotheses guided the study. Mean and standard deviation were used to answer the research questions while in testing the hypotheses, t-test was adopted. The result was that the influence of retraining programme on primary school teachers' self-efficacy and social support in teaching does not depend on location. Therefore, in this study, self-efficacy may not have relationship with collaborative learning.

Pandey (2008) in his study observed relationship of academic achievement with parental education. The study was conducted on 92 higher secondary pupils of Mizo tribe. Self prepared information form for parental background and the marks obtained by the pupils in the half yearly examination from official record for achievement scores were used. Four research questions using mean and standard deviation to answer them, and four null hypotheses using t-test guided the study. The result revealed that academic achievements of pupils were not affected by educational level of parents as the "t" value (0.87) was not significant. Parental education involves interaction, imitation and modeling just like collaborative learning. Therefore, there may be relationship between academic achievement and collaborative learning in this study.

RESEARCH METHODOLOGY

This study is a correlational research design. This research design is a type of descriptive design that is used to determine the nature and scope of relationship that exists between two or more variables being investigated (Ali, 2006). The research design is suitable for this study because the researchers are interested in establishing the relationship among collaborative learning, self-efficacy beliefs and academic achievements of senior secondary school students.

This study was carried out in secondary schools in Obollo-Afor education zone of Enugu state in Nigeria. The zone is one of the six education zones in Enugu state of Nigeria. The other zones are Enugu zone, Agbani zone, Udi zone, Awgu zone and Nsukka zone. Obollo-Afor zone comprises of three local government areas which includes: Udenu, Igboeze North and Igboeze South local government areas. There are forty five (45) public secondary schools in the zone of which 39 are co-educational schools while 6 are same- sex system schools (Source: Planning, Research & Statistics (PRS) Post Primary School Management Board PPSMB, Obollo-Afor education zone, 2013). This area is a commercial zone where people engage in all sorts of business activities with the youths found hawking pushing wheel barrows and motorcycle carriers of passengers. The choice of this zone was consequent upon the researchers' interest, in finding out the secondary school students' self-efficacy belief and achievement with regards to collaborative learning.

The population of this study consists of all the SS2 secondary school students in Obollo-Afor education zone. The number consists of 4,997 (1986 males and 3011 females) students. (Source: PRS, Post Primary School Management Board PPSMB, Obollo-Afor education zone, 2013). The sample of 498 SS2 comprising 198 males and 300 females were used in this study. These students were randomly selected from nine public schools in the zone using simple random sampling technique. The sampling of students was made to cover the three local government areas of the education zone.

In data collection two instruments were used: Collaborative Learning Rating Scale (CLRS) and Self-efficacy Beliefs Rating Scale (SERS) designed by the researchers. Collaborative Learning Rating Scale (CLRS) has 25 items structured to elicit information from the students regarding collaborative learning strategies. The items here were scored on a four point rating scale that ranges from Strongly Agreed (4 points) to Strongly Disagreed (1 point). The Self-efficacy Beliefs Rating Scale (SERS) on the other hand has 20 items designed to assess students' self-efficacy beliefs. The items were equally placed on a four point rating scale similar to that of the collaborative learning rating scale.

The instruments, CLRS & SERS were face validated by four (4) experts, two from Department of Educational Foundations (Educational Psychology), and two from Science Education and Guidance and Counseling units all from the Faculty of Education, University of Nigeria Nsukka .The experts looked at the adequacy of the items in terms of item clarity, simplicity of the vocabulary and the relevance to the study in line with the purpose of the study and research questions.

The instruments Collaborative Learning Rating Scale and Self-Efficacy belief Rating Scale (CLRS & SERS) were trial-tested on SS11 students in Nsukka education zone that is not part of the area of the study. This enabled the researchers to effectively determine the reliability of the instrument using Cronbach Alpha (α) which gave values of 0.88 for CLRS and 0.95 for SERS. The researchers administered and collected the copies of instruments distributed to the respondents on the spot. They employed two research assistants, and trained them on how to administer and collect the instruments. This is to ensure a high return rate of the instruments.

Data collected were analyzed using Pearson Product Moment Correlation Coefficient to answer the research questions while Analysis of Variance was used to test the null hypotheses at 0,05 level of significance. The correlational value are based on the following decision levels: 0.10 - 0.49 = Low correlation; 0.50 - 0.69 = Moderate correlation and 0.70 - 1.00 = High correlation.

RESULTS

Table 1: Pearson Product Moment Correlation Coefficient Analysis of Relationship between Collaborative Learning and Students' Self-Efficacy Belief

Variables	\bar{x}	SD	N	r	R ²
Collaborative learning	2.77	0.29	498	0.57	0.32
Self-efficacy belief	2.79	0.32	498		

Result shown in table 1 shows Mean scores of 2.77 for collaborative learning and 2.79 for self-efficacy and a correlational coefficient (r) value of 0.57 between collaborative learning and self-efficacy belief. This coefficient value shows that moderate linear relationship exists between collaborative learning and students' self-efficacy belief. The coefficient of determination R² of 0.32 shows that 32% of students' self-efficacy is predicated by collaborative learning strategies.

Table 2: Pearson Product Moment Correlation Coefficient Analysis Showing Relationship between Collaborative Learning and Academic Achievement of Secondary School Students

Variables	\bar{x}	SD	N	R	R ²
Collaborative learning	2.77	0.29	498	0.63	0.38
Academic achievement	61.01	17.80	498		

The result in table 2 above shows the mean score and standard deviation of students' responses in collaborative learning as 2.77 and .29, and that of academic achievement as 61.01 and 17.81. This means that collaborative learning strategies enhance students' academic achievement. Again, the correlational value r of 0.63 shows that a moderate linear relationship exists between collaborative learning and students' academic achievement. The coefficient of determination R² of 0.63 means that 63% of students' academic achievement is predicated by collaborative learning.

In testing the hypotheses, Analysis of Variance (ANOVA) was used to analyse the data. The result of the analysis is presented on table 3 and 4 below.

Table 3: Analysis of Variance (ANOVA) Table Showing Relationship between Collaborative Learning and Self-Efficacy Belief of Secondary School Students

Model		Sum of Squares	DF	Mean Square	F	Sig. (2-Tailed)	Probability Level	Decision
1	Regression	0.023	1	0.023	0.226	0.035	0.05	Significant
	Residual	51.055	496	0.103				
	Total	51.078	497					

The result from table 3 above shows that the significant level for two tailed test 0.035 is less than the probability level of 0.05. This value is significant hence; the stated null hypothesis is rejected. The means that there is a significant relationship between collaborative learning of secondary school students and their self-efficacy belief..

Table 4: Analysis of Variance (ANOVA) Table Showing Relationship between Collaborative Learning and Academic Achievement of Secondary School Students

Model		Sum of Squares	DF	Mean Square	F	Sig. (2-Tailed)	Probability Level	Decision
1	Regression	135.746	1	153.746	0.484	0.007	0.05	Significant
	Residual	157453.204	496	317.446				
	Total	157606.950	497					

The result from table 4 shows that the significant level for two tailed test 0.007 is less than the significant level of 0.05. Hence, the stated null hypothesis is not accepted. This means that there is a significant relationship between collaborative learning and academic achievement of secondary school students.

DISCUSSIONS

The results show, moderate linear relationship exists between collaborative learning and students' self-efficacy. Also coefficient of determination shows that 32% of students' self-efficacy could be attributed to collaborative learning. This finding revealed that collaborative learning alone cannot account for students' self-efficacy, as other variables accounted up to 68% of students' self-efficacy. However, these variables are not under considerations in this study. The findings equally revealed that there is a significant relationship between collaborative learning of secondary school students' and their self-efficacy belief. This finding is in consonance with Torubelli (2006) and Obeta (2008) studies on the effect of peer collaboration on primary school pupils' and adolescence achievement and self-efficacy in mathematics. Which revealed that peer collaboration technique enhances students' self-efficacy. However, the finding disagreed with the finding of Igbo (2011) which found no relationship existing between retraining programme and primary school teachers' self-efficacy and social support. Also, the study's finding is at variance with Torubelli (2006) study which showed no significant relationship between self-efficacy academic achievement of adolescents in senior secondary schools.

The findings show that moderate linear relationship exists between collaborative learning and students' academic achievement. Also coefficient of determination shows that only 63% of students' academic achievement could be attributed to collaborative learning. From this finding one may infer that collaborative learning alone cannot be attributed to students' academic achievement, that 37% could be attributed to some factors (like students intelligent quotient, socioeconomic background, students study habit) that are not within the research consideration of this study . Also, the findings show that there is a significant relationship between collaborative learning of secondary school students' and their academic achievement. This finding is in consonance with finding of Adayo (2002) that found increased in students' achievement after nine weeks of peer collaboration. Also, the finding of the study agreed with the finding of Uroko (2009) who found that the achievement of students in reading comprehension increased after reciprocal peer tutoring. The finding of the study closely agreed with the finding of Obeta (2008) that found that peer collaboration technique promotes students academic achievement.

RECOMMENDATIONS

In line with the findings of this study, the following recommendations are made.

- Teachers should adopt collaborative learning during teaching and learning for optimal results on students' self-efficacy and academic achievements.

- Teachers should be trained and retrained on the applicability, usability and workability of collaborative learning by educators.
- Students should take the advantage of collaborative learning to build for themselves positive self concept as they take turns in acting as tutors and tutees during instructions thereby enhancing their academic achievement.

CONCLUSIONS

The researchers' findings furnish or supply insights into the relationships between collaborative learning and self-efficacy belief and the efficacy of collaborative learning and students' academic achievement. The study makes a lot of contributions to existing literature on students' self-efficacy belief, and academic achievement in relation to collaborative learning. First, senior secondary school students are influenced by their experiences with collaborative learning. Second, collaborative learning played a great impact on senior secondary school students and their self-efficacy belief. Third, academic achievement of senior secondary school students in relation with collaborative learning influenced the performance of the students.

Some researchers have focused on other aspects of students with little attention paid on influence of collaborative learning. Onyemenkeya (2002) found that interaction between teacher and students, students and students in the school is a social support that contributes to student's self-efficacy which improves academic achievement. If students' self-efficacy is high, the student is likely to achieve higher academically, but if student's self-efficacy is low, there is the tendency that academic achievement may equally be low. It is relevant for teachers to adopt collaborative learning during teaching and learning for optimal results on students self-efficacy and academic achievement. It is observed that some teachers may not have trained or oriented on the application of collaborative learning. The State support on exposing teachers on collaborative learning will enhance students learning. It is appropriate for students to take the advantage of collaborative learning to build up themselves positively and to turn towards positive self-efficacy as they take turns to speak out during collaborative learning, thereby enhancing their academic achievement.

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