

TEACHERS' TEACHING STRATEGIES AND FORMATIVE ASSESSMENT AS PREDICTORS OF ACADEMIC PERFORMANCE AMONG THE UNDERGRADUATES OF UNIVERSITY OF IBADAN, NIGERIA

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Abstract

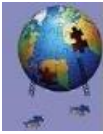
The study assessed the extent to which active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation predict academic achievement among the participants in university of Ibadan, faculty of Education, Oyo state, Nigeria. The descriptive research design of correlational type was used for the study. Simple random sampling procedure was used to include 501 students in the department of Counselling and Human Development studies for the study. Three research questions guided the study. 42-item questionnaires for participants were used for data collection. The Cronbach's coefficient alpha for the questionnaire was 0.73, respectively. The results showed that, to a great extent, that integrating these teaching methods could enhance academic achievement among the learners. Also, the results showed that, all the teaching strategies and methods used were significantly predicted - active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation - academic achievement among learners. The researcher recommends that all teachers and most especially the teachers in training should be exposed to all the strategies considered in this study and they should put it in to practice when they are teaching their learners. Also, It is recommended that teachers are given timely in-service training on these strategies in order to enhance academic achievement of their learners. Furthermore, Oyo state teaching service commission should allocate funds for workshops, seminars and others for teachers on teaching methodologies and new innovations on knowledge impartation.

Keywords: Teacher, teaching strategies, formative assessment, predictors, academicremove keywords: teacher, teaching strategies, formative assessment, predictors, academic.

INTRODUCTION

Formal or informal education is the right of every individual to gain, for character formation and for self and national development. It is a process by which a child is indoctrinated into the culture and codes of conducts necessary for moral and social wellbeing of the person and that of the society that individual found itself. A child's participation in education is to train the child to acquire the knowledge, skills, values and attitudes required of him by the family and society he lives for their both economic and social development. So it is the aggregate of all the means by which a person develops ability, attitude and other forms of behaviours of positive value in the society in which he lives and a process by which people are prepared to live effectively and efficiently in their own environment.

Education is considered as an asset that develops individual and in turn the society. In most cases the objectives of education have not been achieved as a result of government's lapses. These lapses are seriously militating against educational system in Nigeria society - leading to instability in the school system, constant strikes, increase in the duration of schooling, lack of qualified teaching staff, increase in



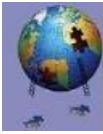
school fees, lack of teaching aids, and lack of cooperation in educational planning leading to different states with their own curriculum and lack of uniformity in higher institutions curriculum, this is a serious setback for national development. Poor is the inability of a student to achieve the standard pass mark of the school system while academic failure is a student's inability to achieve the set standard.

Education is a big tool for character formation and for societal welfare. The major objective of education is to train an individual in some specific skills that will equip him for life time. Past studies revealed that in Nigeria, education aims at ensuring that all citizens pass through school and receive the maximum qualification, skills and knowledge needed for human and societal development. That is the reason Ukhurebor (2006) asserted, "education is developing an individual physically, mentally, morally and socially for his own benefits and for the benefits of the society". In order to achieve these aims and the set objectives of education, the system which changes from time to time must ensure that home and school environments must be conducive and enticing for the learners.

Achievement is the act and art of one gaining success at the end in any activity the individual participates in. Achievement in life is always seen as completion of a task enrolls into successively. Achievement otherwise is accomplishment and fulfillment a person gets after engaging in a difficult and non-difficult task and completing it with desired outcome. The type of achievement that is general to humans' endeavour comes from various facets of life. This can be in government, school, social, religious, political, cultural, economic, family, relationship or personal settings. The point is that achievement is the success (es) one has gained/attained after hard work despite opposing challenges. This is gained by determination, great ability, skills, and courage and motivation especially intrinsic and extrinsic motivation. As pertain to this study, educational in other word academic achievement is the researcher's focus.

Academic performance is what a student gains for completing with success the academic task or assessment he is engaged to after exposure for a period of time. Put in other way, academic achievement represents the student's successful completion of an educational goal or academic requirements set for his level. In line with this, Badiger and Aiholli (2017) posit academic achievement as the outcome of education or the extent to which a student or a school achieves their educational goals. This made Emery (2009) to assert that, academic achievement is defined by the level of schooling one have successfully completed and the ability to attain success in one's studies. Emery (2009) is explaining that, the end result of what the student is able to gain at the end of every teaching and learning process defines the student's. Amidst academic achievement, , poor , academic failure, and academic underachievement are enlisted. Academic achievement is what the students have acquired both cognitively and from other domains of learning while is based on what the student has acquired specifically, cognitively. Research report has it that, academic underachievement is a state whereby the student often performs low in every school or class assessment. This state can create psychological effect of: lack of self-trust, lack of self-confidence, lack of self-worth or negative self-concept, which may lead to learned helplessness and finally, academic failure. Based on the above assertions, the researcher in the context of the study concluded that academic achievement is the extent to which a student is able to attain and accomplish successfully by means of exertion, skills, practices or perseverance his short and long-term educational goals for entering schooling.

The problem of poor academic achievement is reflecting year-in-year-out on Basic School Examination results conducted by NECO and in the Senior School Certificate Examination conducted by NECO and WASSCE and in the results of higher institutions in Nigeria. The extent of this academic achievement is



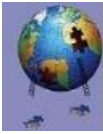
seen on daily basis in the facts that many industries and factories are complaining that Nigeria graduates are not employable due to lack of skills of majority of them in their course of study. Also it was observed that the results which learners from the secondary school are bring to secure admission to higher institution could not be defended by their owners which means something is happening somewhere. This has led to aspersion on the parts of the secondary school teachers that they are the one helping students to write SSCE examination otherwise there is no way a student that passed SSCE examination creditably well would not be able to pass the university examination. The effect of poor is felt in the sense that the learners from secondary school could not perform in higher institution and those from higher institution cannot defend their certificates and these have led to poor development in Nigeria.

Many researchers have worked on issue of academic achievement among them are (Eze, 2008); Ryan (2006); Simon (2007); Adika (2009); Adedipe (2005) and Adegbite (2005)) and they have argued back and forth on the following factors- that the child's success in school are determined by social, economic, psychological, cultural, genetic and emotional environment the learners are exposed to in the school that learner finds himself or herself (Williams-Oladapo, 2020). The researchers arguing put that, the child's achievements are not only in school, it can be determined equally by different factors outside the school, like inferiority complex, poor or negative self-definition, unhealthy self-esteem only but few built in at home. Interesting to note, if these number of factors influence the learner negatively, his academic achievement becomes poor or a failure which as well will negatively influence his social interactions. In other hand, if the influence is positive, it also reflects positive on academic achievement of the learners. This is an indication that education in its forms could be used for proffering solutions to national problems.

This present study is focused on how to improve academic achievement of learners by using the following variables: through active listening, low stake quizzes, the use of flashcards, jigsaw methods, use of flow chart and formative assessment by the teachers. These approaches involve the participation of teachers and the learners but the teachers as the principal initiators in order to enhance academic achievement of the learners. The teachers need to practice what is known as teachers practice questions in order to enhance learner's academic achievement.

Practice questions are an effective means of retention for learners as they to reinforce learning by applying what they have learned; learners reinforce new knowledge and skills. Practice questions identify knowledge gaps by recognize areas where they need more practice. It also improves retention by actively recalling information through practice questions strengthens memory and improves long-term retention. Practice questions (Pqs) help learners apply what they have learned to solve problems and think critically. Successfully completing practice questions boost learner's confidence in their abilities. It's also help learners apply what they have learned to new situations, promoting transfer of learning. Practice questions engage learners in the learning process, making it more interactive and enjoyable and it can offer feedback, helping learners adjust their understanding and improve their . By incorporating Practice questions into the learning process, educators and learners can reinforce new knowledge, identify areas for improvement and develop problem-solving skills, leading to better retention and application of what is been learned.

The sender is the person speaking and the one who is giving the information. The sender could be the teacher, a student, a presenter, etc. The sender's job is to speak clearly, deliver the information, and engage the audience. The receiver is the one receiving the information and is the active listener. The receiver's job is to actively listen to the sender, process the information, make sense of it, and respond.



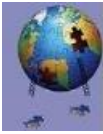
This is challenging for many students and needs to be taught and modeled with a lot of guided practice. The teacher needs to make sure that the students listen intently, participate, and engage in what the speaker is saying. When students know and feel that they are heard and understood, they are more likely to engage. Teaching, modeling, and providing guided practice in active listening transforms students into active listeners. We can all tell, whether a child or an adult when someone is actively listening. We can tell from the eye contact to the body language, to the facial expressions, and then finally the response one gets in return. All of us want to be heard and for our words to be understood. Active listening is an essential life skill as it helps both adults and students learn and build healthy and positive relationships with others.

Regular use of quizzes can help you to monitor pupil progress and identify common mistakes and misconceptions. They also provide valuable opportunities for feedback and help to embed learning. To maximise the impact quizzes have, they need to be formed of carefully crafted, high-quality questions that follow a pupil's learning journey. These questions need to be clear, accessible and deliberately framed to anticipate misconceptions. A high-quality quiz also needs to draw out deeper understanding and provide an appropriate level of challenge for all. It's all really time-consuming, so it's easy to see how regular quizzing can fall by the wayside. Starter quizzes can be a great way to start a lesson by checking that pupils' have the necessary prior knowledge to access the lesson. This allows you to quickly identify and address any knowledge gaps before introducing new learning. Exit quizzes can be used to assess progress made within the lesson and used to inform future planning. These quizzes are also valuable when used as homework or for spaced retrieval practice.

Flashcard teaching strategies are popular with teachers because of their effectiveness. Parents also appreciate the flashcard because it's an easy at-home teaching method. There are several ways to use flashcards for teaching. Taking a moment to learn about the best strategies can help you make the most of your time and effort. It can be difficult to know how much you should teach your child at home among the things they will be learning in school. Thankfully, your intuition as a parent is likely one of your best resources. If you and your child are enjoying teaching and learning together it can strengthen your bond and sometimes give your child an edge in school.

Using innovative teaching techniques can help to promote active learning and engagement among the students. The jigsaw teaching strategy is a powerful tool at teachers' disposal to foster collaboration and deeper comprehension in the classes. Jigsaw method is more or less as structured cooperative learning model, the jigsaw method empowers students to take ownership of their learning process, promoting both individual accountability and group interdependence. The jigsaw method of teaching is based on a philosophy of collaborative learning that can invigorate students and educators alike. At its core, the jigsaw instructional strategy involves breaking down course material into parts, assigning these sections to small groups or individuals, and then bringing everyone back together to share their knowledge. Students become experts in their specific segment and then collaborate to assemble the full picture. The jigsaw classroom strategy not only encourages in-depth comprehension of the material but also nurtures essential teamwork, communication, and problem-solving skills. Success in implementing the jigsaw method relies on the active awareness and knowledge of the students in our classroom. Capitalizing on the strengths of each individual for the benefit of the entire group is what drives the assignment process. The teachers' material should also lend itself to simple distribution as the teacher delegate the coverage of the content.

Also teachers can use flowcharts in classrooms to facilitate lecture delivery in many aspects. In this study some of the ways to apply flowcharts to boost teaching and effectually enhance academic achievement are listed. Organize a sequence of events or actions in a step-by-step way, leading to its outcome. For



example, teachers can use a flowchart to show how to do an experiment step by step. Simplify complicated ideas by summarizing and paraphrasing with simple words in a flowchart. Outline and organize a thinking process. When doing reading comprehension practice, teacher can apply a flowchart to visualize the plot development or the author's train of thought. By analyzing how the author reaches a conclusion, flowcharts can boost reading comprehension. Flowcharts can boost teaching greatly for its features of visualization and simplicity. Understanding the sequence of a process, understanding different stages in a process, understanding the relationship between different stages, understanding which step may need more attention, understanding the ultimate goal, and analyzing a problem and seeking out the solution.

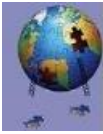
Formative assessment refers to a wide variety of methods that teachers use to conduct in-process evaluations of student comprehension, learning needs, and academic progress during a lesson, unit, or course. Formative assessments help teachers identify concepts that students are struggling to understand, skills they are having difficulty acquiring, or learning standards they have not yet achieved so that adjustments can be made to lessons, instructional techniques, and academic support. The general goal of formative assessment is to collect detailed information that can be used to improve instruction and student learning *while it's happening*. What makes an assessment “formative” is not the design of a test, technique, or self-evaluation, per se, but the way it is used—i.e., to inform in-process teaching and learning modifications.

Many educators and experts believe that formative assessment is an integral part of effective teaching. In contrast with most summative assessments, which are deliberately set apart from instruction, formative assessments are integrated into the teaching and learning process. For example, a formative-assessment technique could be as simple as a teacher asking students to raise their hands if they feel they have understood a newly introduced concept, or it could be as sophisticated as having students complete a self-assessment of their own writing that the teacher then reviews and comments on. While formative assessments help teachers identify learning needs and problems, in many cases the assessments also help students develop a stronger understanding of their own academic strengths and weaknesses. When students know what they do well and what they need to work harder on, it can help them take greater responsibility over their own learning and academic progress.

Statement of Problem

High academic achievement is the hall mark of educational excellence. No matter how dull an individual is, once such individual falls in to the hand of the teacher who uses variety of strategies for learners during the teaching-learning process such individual learner will definitely excel in his/her academic pursuit. However, if the teacher is using a monotonous or a single method to teach the learners, the students under such condition cannot excel beyond average . The way the teacher is, so is the way the students will be. For the students to perform excellently well require variety of teaching styles and strategies to derive in what the teacher is intended to teach. Otherwise poor academic achievement will be the resultant effect. Based on the above argument this present study is set to examine the outcome of the usage of these six strategies (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) on academic achievement of the learners for the period of five years.

Purpose of the Study: The major purpose of this study is to examine the pattern of relationship between independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) on dependent variable (students' academic achievement). It also



meant to determine the composite effect of independent variables on dependent variable. Finally, it is meant to determine the relative contribution of each of the independent variables on academic achievement in the Ibadan land.

Research Questions: The following research questions guide the course of this study. The instrument that was used for this work was designed to answer the following questions.

1. Are there any relationships among the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) on students' academic achievement among the University of Ibadan, Ibadan, Oyo state, Nigeria?
2. What is the composite contribution of the independent variables to the dependent variable?
3. What is the relative contribution of the independent variables to the dependent variable?

Methodology

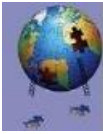
Research Design: This study made use of descriptive research design of correlational type which does not involve direct control of any variable or any experimental manipulation.

Population: The target population for this study consists of all students in the Faculty of Education, Department of Counselling and Human Development Studies, University of Ibadan, Ibadan, Oyo state, Nigeria.

Sample and Sampling technique: The study is restricted to all the 400 Level in the Department of Counselling and Human Development Studies for the past five sections. The sample for this study was made up of five hundred and six (506) participants using simple random sampling procedure to select the participants.. In all, the sample comprises of both males and females final year students in the department stated.

Instrumentation: The researchers designed the instruments used for data collection: In all, the instrument has 42 items, and records of the learners' academic achievement (GPA) were used to measure the students' academic achievement while 7 items each were used to measure the independent variables. The Psychometric properties of the instruments were determined, and the reliability and content validity coefficient of whole instrument was 0.78. The response format was 4- a point scale of Strongly Agree (SA), Agree (A), Disagree (D), and Strongly Disagree (SD). The instrument was divided in to seven sections. Section A was used to collect information on demographic-information of the respondents, Section B measured information on independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation). The reliability coefficients of the different sections were as followed: 0.81, 0.84, 0.75, 0.71, 0.74, and 0.73 respectively using Cronbach alpha.

Data Collection Procedure: Academic achievement is not an easy task for both the teacher and the learners. If the teachers are actually ready to face reality as regards their job and if the teachers have the interest of their learners at heart, the teachers would not mind to go extra miles when imparting knowledge. There is no student that desires to fail hence the needs to help them. The teacher need to adopt these steps when teaching, i.e by making their learners an active listeners, by practicing low stake quizzes, the use of flashcards, jigsaw method, the use of flow chart and formative assessment practices from time to time. The researcher uses these methods in teaching his students at 200, 400 and 700 level for the periods of ten years and 400 Level students results were used in this study for a period of five years and their results at the end of the semester serves as dependent variable and the independent



variables are measured as well at the end of each semester examination immediately they finished writing the examination.

Method of Data Analysis: Data were analyzed using the inferential statistics of correlation and regression analysis to carry out the correlation and to determine the composite and relative contribution of independent variables on dependent variable.

Results

Research Question One: What is the pattern of relationship between independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) on students' academic achievement among the students in the Ibadan land, Nigeria?

Table 1: Summary of Correlation Matrix Showing the Pattern of Relationship between the Independent Factors and Academic Achievement

Variables	AA	AL	LSQ	FC	JSM	FC	FA	Mean	SD
Academic Achievement	1.000							3.94	0.29
Active listening	0.283**	1.000						26.35	0.86
Low stake quizzes	0.402**	0.200**	1.000					17.90	1.89
Flashcards	0.460**	0.106*	0.210**	1.000				16.99	7.78
Jigsaw method	0.376**	0.409**	0.148**	0.026	1.000			24.53	3.42
Flow chart	0.295**	0.276**	0.101**	0.507**	0.231**	1.000		24.06	4.45
Formative assessment	0.405**	0.369**	0.048	0.479**	0.423**	.230**	1.000	28.99	4.23

In Table 1, the results showed the pattern of relationship and inter correlation matrix that exist between the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment) and the dependent variable (academic achievement). It implies that the independent variables correlated positively with the academic achievement. The active listening skills ($r = 0.283, p < 0.05$), low stake quizzes($r = 0.402, p < 0.05$), flash cards ($r = 0.460, p < 0.05$), jigsaw method ($r = 0.376, p < 0.05$), flow chart($r = 0.295, p < 0.05$) and formative assessment($r = 0.405, p < 0.05$). That means there is a significant relationship between the independent variables and the dependent variable among the participants in the Ibadan Metropolis. The Table revealed that flashcards method ($r = 0.460$) has most significant relationship and the least is active listening skill or strategy ($r = 0.283$).

Research Question Two: What is the composite contribution of independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment) on academic achievement among the participants in Ibadan Metropolis?

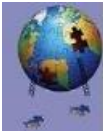


Table 2: Regression Analysis showing Composite Contribution of Psychosocial factors and Academic Achievement

Model	R	R Square	Adjusted R Square	Std. Error of Estimate	
1	0.751	0.560	0.527	6.30889	
Regression Anova					
Model	Sum of Square	Df	Mean Square	F	P-value
Regression	69781.194	6	11630.199	292.150	0.000
Residual	19904.260	500	39.809		
Total	26882.454	506			

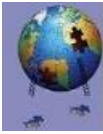
From the analysis of variance presented in Table2, results shows that there is a composite contribution of the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment) on academic achievement. The result yielded correlation coefficient (R) of 0.751, multiple (R) square of 0. 560 and adjusted R² of 0.527. This means that the independent variables accounted for 52.7% of variation in academic achievement with standard error estimate of 6.30889. Also the overall regression model was significant ($F_{6, 500} = 292.150, p = 0.000, p < 0.05$). Since the p-value less 0.05 the result is significant. This means the joint contribution of active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment have significant composite relationship of predicting academic achievement among participants in Ibadan Metropolis.

Research Question Three: What are the relative contributions of independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment on academic achievement among the participants in Ibadan Metropolis?

Table 3: Relative contribution of each of the Independent variables to the prediction of academic achievement

Model	Unstandardized Coefficient		Standardized Coefficient		Sig.
	B	Std. E	Beta	T	
Constant	0.279	2.953		0.095	0.025
Active listening	0.356	0.167	0.248	5.733	0.000
Low stake quizzes	0.417	0.037	0.318	4.465	0.022
flashcards	0.296	0.105	0.139	2.824	0.005
Jigsaw method	0.307	0.075	0.265	3.418	0.015
Flowchart	0.380	0.079	0.220	4.785	0.000
Formative assessment	0.371	0.073	0.294	3.726	0.000

Table 3 results revealed the relative contribution of each of the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment) predicting the dependent variable (academic achievement) among the participants in Ibadan Metropolis. Using regression coefficient to determine the relative contribution of the independent variables on academic achievement, results reveals that active listening ($\beta = 0.248, t = 5.733, p < 0.05$), low stake quizzes ($\beta = 0.318, t = 4.465, p < 0.05$) and flashcards ($\beta = 0.139, t = 2.824, p < 0.05$), jigsaw method($\beta = 0.265, t = 3.418, p < 0.05$), flow chart ($\beta = 0.220, t = 4.785, p < 0.05$),and formative assessment ($\beta =$



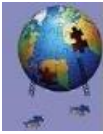
0.294, $t = 3.726$, $p < 0.05$) were all significant predictors of academic achievement. Low stake quizzes is the most potent factor while flashcards is the least potent variable predicting academic achievement.

Discussion

In response to the research question one which asks Are there significant relationships among the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) and dependent variable (students' academic achievement) among 400 level university of Ibadan, Ibadan in GCE 407(Inferential Statistics). Which states that there is no significant relationship between formative evaluation and students' academic achievement was rejected. It was found that there was significant relationship between formative evaluation and students' achievement in government subject. This study is in line with Fehintola (2014) and Fehintola (2015) on secondary school teachers. It was found that students who were happy with formative assessment performed creditably well and had high academic achievement among secondary school students. Elliot and Gramling (2019) found that active listening helps the college students' academic achievement and lessens academic stress. They also found that active listening could help the students manage academic achievement. Furthermore, a positive correlation between low stake quizzes has been reported by Nahid and Sarkis, (2014) in that high level of low stake quizzes have been associated with high level of academic achievement among college students. Low stake quizzes was found to be one of the most important protective factors for students' academic achievement (Eva, José, Olga, Rosario and José. 2017). Hetherington and Stanly-Hagan, (1999) children from college have been found to have fewer academic problems and enhanced academic achievement when used flow chart strategy in class than children that refused using flow chart strategy in class. Kelly and Emery, (2003) in their finding shows that children have greater scores in academic achievement when they practice jigsaw strategy effectively.

Gronlund, (1976) asserted that children whose teacher demonstrate the use of flow chart teaching strategy in class demonstrate higher rates of academic aspiration and academic achievement, this which often resulted into higher achievement scores, and lower dropout rate in the school and society at large. Meng and Jia, (2023) also noted that students at times adapt easily with the use of flow chart usage because it showcases the sequence of solving a problem and in which when the learners can follow the sequence could enhance academic achievement. In the same vein, Reid (2005) shows that students that are familiar with the use of formative assessment are compared with students from low stake quizzes later are better adjusted and have better relationship with their teachers that assist them in academic achievement.

In response to the research question two which asks whether there is any joint effect of the independent variables on the students' academic achievement GCE 407 among 400 Level in university of Ibadan, Ibadan, Oyo State. The result shows that there was joint effect of the independent variables (active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation) on students' achievement in GCE 407. The combination of the independent variables accounted for high percentage variance in students' achievement in Inferential Statistics. The analysis of variance of the multiple regression data yielded an F-ratio value which was found to be significant. The ANOVA result from the regression analysis also attests to the causal effect of the independent variables on the dependent variables. Active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation have stimulated a variety of ideas that plays pivotal roles on students' academic achievement. To respond to teacher usages of active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation, a student must be able to recall some information from memory, but must apply that knowledge and other knowledge to explain, extrapolate or further analyze a topic or situation that lead to academic achievement. Formative



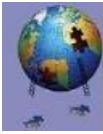
evaluations are broader in nature, can have multiple answers, and require then a higher level of thinking on behalf of the student academic achievement.

Through formative assessment, teacher asks students to think of an alternate approach for academic problem so as to promote academic achievement and lessen academic difficulties. Teachers use low stake quizzes as the initial step in academic problem-solving process. For high-formative evaluation, creative thinking is encouraged, but in order for students to benefit from high-knowledge evaluation, the teacher established that highest point or scores in low stake quizzes enhanced student academic achievement and should be allowed the freedom to come out with unique, new or imaginative ideas. This clearly suggests that teachers have to make the effort to give students- the chance to express their responses freely through integration of many strategies like jigsaw, flow chart and allow the exploration of ideas to flow. In line with this finding, a combination of variables like formative assessments has been observed by Pajare and Adegbite (2008) on academic achievement while the combination of strategies like active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation have also been observed by Finn & Allen (2002) on academic achievement among senior secondary school students.

The result of the third research question on the relative effect of each of the variables has also been significant. In all academic work as a whole, it is revealed that the degree of active listening skill, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative evaluation are very relevant to an actualization of students' achievement in any given course among learners/students. This finding is corroborated by the study of Ryan (2006); Simon (2007); Adika (2009) who found that the above variables have independent effect on students' academic achievement among senior secondary school students. Adedipe (2005) that flow chart and jigsaw strategies help the college students to lessen depression, anxiety, and academic stress. Also, that formative assessment could help the students manage and lessen their academic problems. It is also in consonant with the findings of Holley (2011) who found that low stake quizzes and flash cards could act as a factor that could decrease academic problems among students such as stress. Adegbite (2005) in their finding shows that children have lesser academic problems when they are conversant with the use of flow chart, jigsaw and low stake quizzes because it leads to enhancement of students' academic achievement.

Conclusion

The six independent variables explored in this study could be used to predict and enhance among learners. The high achievement or failure rate stems from a post pourri of factors some of which have been studied in this work. The study reveals that there is no student that cannot achieve optimally if taught with correct method(s) and that learners may have more than one reason for poor academic achievement and that a quick intervention will lead to the identification of the factors responsible appropriately inform the solution required. The model from this study is tenable in explaining the significant predictors between independent variables and dependent variable with low stake quizzes being the most potent factor followed by active listening, use of flashcards, jigsaw method, use of flow chart and formative assessment. This indicates that, teachers should not toy with the future of their learners, adequate concern must be shown by the teachers to make sure the learners are exposed to the curriculum using variety of methods that would allowed and motivate the learners to learn and students must be encouraged to be committed to their studies so that they can excel in life. Only this can guarantee the nation the expected development and growth.



Recommendations

Based on the findings from this study, the following are recommended: These strategies could be used and regarded as adequate measure for enhancement of academic achievement in all level of our national education. Teaching learners with combination of these strategies ie active listening, low stake quizzes, and use of flashcards, jigsaw method, use of flow chart and formative assessment should be boosted since it is highly germane to successful academic achievement.

The researcher recommends that issue of flashcards by the students should not be downplayed since it enhances learning. Students need to be taught how to use flashcards to facilitate thinking and how they can enrich their academic achievement positively. Formative assessment is a better predictor of university freshmen. Therefore more attention needs to be given to formative assessment as regards exposing students to it during teaching-learning process.

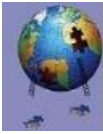
The use of flow chart is a significant predictor of academic achievement of participants, therefore, the education stakeholders should make it compulsory for all teachers to assess their students from time to time in order to make the learners perform well in the summative examination as it meant or designed for.

Possession of attentive listening skills by the students is a significant predictor of academic achievement of the participants, the researcher observes that the learners who are attentive in classroom when lecture was ongoing performed better than those who did not, and the researcher therefore advises teachers to see to their learners' comportment when teaching.

The researcher further recommend that jigsaw method should not be underrated among students as it enhances their academic achievement and also builds their courage in speaking openly anywhere they found themselves.

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