

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

Nnajiofor Henry Uzochukwu

Department of Educational Foundations and Administration, Nwafor Orizu College of Education, Nsugbe



ABSTRACT: Teachers' effectiveness has proven to be the most influential school-related factors in students' academic achievement, if a teachers' quality is one of the pillars of success in education, it follows then that a serious teacher-evaluation system should be put in place mainly because the purpose of evaluation is to recognize, cultivate and develop good teaching process. A quasi-experimental design was adopted. The population of this study comprised of seven thousand, eight hundred and eighty-nine (7,889) secondary school teachers and students. However, Cohen's t-test formula was used to determine a sample size of one hundred and twenty-six (126) respondents. The obtained data were analyzed using simple percentage (%) and Likert rating scale while the stated hypothesis was tested using Chi-square statistic. The findings of this study revealed that the different teaching methods used by the teachers of secondary schools in Awka North, Anambra State include students-centered method, discussion method and demonstration method of teaching with mean numbers above 3.0. It was also revealed that students-centered method of teaching can influence the academic achievement of the secondary school students by developing their autonomy, stimulating their thinking and learning abilities through asking questions, making them to participate fully in the learning process and as well by making students with prior knowledge on the topic to contribute among secondary school teachers and students in Awka North, Anambra State. Also, the result of the tested hypothesis showed that there is a significant relationship between teaching methods and academic achievement of secondary school students in Awka North, Anambra State. It was recommended in this study that the training of teachers on different methods of teaching for effectiveness of the content delivery; this will help the students to improve in performance.

KEYWORDS: Education, Teaching Methods, Academic Achievement

INTRODUCTION

Education has been conceived as a process of transmission of factual knowledge and the belief in the efficacy of education as a powerful instrument of development has led many nations to commit much of their wealth to the establishment of educational institutions at various levels. The quality and quantity of human and physical resources determine a nation's growth and development. The core of education is teaching and learning, and teaching-learning process works better when there are effective teachers working with students (Osuala, 2017).

Teachers' effectiveness has proven to be the most influential school-related factors in students' academic achievement, if a teachers' quality is one of the pillars of success in education, it follows then that a serious teacher-evaluation system should be put in place mainly because the purpose of evaluation is to recognize, cultivate and develop good teaching process (Ibekwe, 2015). Teachers' quality is directly proportional to students' performance. This implies that teachers' role in the preparation of students to succeed in examinations cannot be undermined. Teachers' qualifications in any educational system determine to a great extent the quality of the system itself. Teachers' quality is widely thought of as an essential determinant of academic achievement (Ibeawuchi 2016). It is probably for this reason that Ibukun (2020) asserted that no education system can rise above the quality of its teachers in any nation.

Teaching is an "art" but the success of a teacher lies in making his subject so simple so as to make it intelligible for his students (Yadar, 2014). According to Ayeni (2015), teaching is a process that involves bringing about desirable changes in learners so as to achieve specific outcomes. In order for the method used for teaching to be effective, Adunola (2016) maintained that teachers need to be conversant with numerous teaching strategies that take recognition of the magnitude of complexity of the concepts

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

to be covered. Hence, the main purpose of teaching at any level is to bring out a significant change in the learner (Tebabal & Kahssay, 2017).

Transferring knowledge requires teachers to use the appropriately method and pedagogy that best suits the learner and suit the objectives and desired outcomes. That is to say, that in order to make students learn effectively, the teacher has to adopt the right method of teaching. Most of the traditional methods were teacher- centered with no activity for the learners making them passive and therefore obtaining knowledge from the teacher without building their engagement level with the subject matter, the approach is least practical, more theoretical and memorizing (Tebabal & Kahssay, 2017). Student-centered approaches which are more effective are more encouraged because they embrace the concept of discovery learning (Brindley, 2015). Most teachers today apply the student-centered approach to promote interest, analytical research, critical thinking and enjoyment among students (Hesson & Shad, 2018). The effectiveness of teaching methods on students learning have consistently raised considerable interest on the thematic field of educational research (Hightower, 2017). Most of the teaching methods today have embraced modern technology and this has brought tremendous changes in the field of learning. The poor academic achievement by majority of the students in various subject areas is basically linked to the application of ineffective teaching methods by teachers to impact knowledge to learners and therefore teachers need to be conversant with numerous teaching strategies (Adunola, 2017).

Academic achievement of college students is an important factor affecting the achievement of higher education goals (Zhu, 2016). Academic achievement is a direct manifestation of learning effectiveness and a valid indicator to evaluate the effectiveness of teaching and education in higher education as well as the overall development of students. Academic achievement of college students is influenced by various factors, and researchers have done a lot of research. Indicative of this movement is the recent addition of social and emotional measures to established Organization for Economic Co-operation and Development (OECD) measures (e.g. PISA, OECD, 2019). These measures include, according to Chernyshenko et al. (2018), teaching methods, emotional regulation (e.g. stress resistance, optimism), task performance (e.g. motivation, persistence, self-control) and compound skills (e.g. metacognition, self-efficacy).

Academic achievement plays a role in the studies by Colmar, Liem, Connor, and Martin (2019) and Martinez, Youssef-Morgan, Chambel, and Marques (2019). For Colmar et al. (2019), the capacity of elementary school students to respond to academic setbacks, academic buoyancy was not predictive of academic achievement. However, academic buoyancy effects were demonstrated for both reading and mathematics achievement in Australian students when mediated by self-concept. Psychological capital resources (e.g. efficacy, hope, optimism, resilience) are fore-grounded in Martinez et al.'s (2019) examination of Spanish/Portuguese university students' engagement and achievement. Their findings showed that students who report being engaged in learning are more likely to be users of psychological capital who in turn are more likely to achieve higher academically.

Statement of the Problem

This study investigates the impact of teaching methods on the academic achievement of students in public secondary schools in Anambra State. Despite various pedagogical approaches being employed, there is a growing concern that many students are not achieving their full academic potential.

Factors contributing to this issue may include the diversity of teaching methods used by educators, the varying levels of student engagement, and the effectiveness of instructional strategies in meeting the diverse learning needs of students. This research aims to identify which teaching methods are most effective in enhancing academic achievement, and to explore the relationship between specific methodologies and student outcomes. However, understanding these dynamics is crucial for educators, policymakers, and stakeholders in improving educational practices and fostering an environment conducive to student success. By addressing this problem, the study seeks to provide actionable insights that can lead to improved teaching strategies and ultimately better academic results for students in the region.

Purpose of the Study

The general purpose of this study is to ascertain the effect of teaching methods on the academic achievement of students in public secondary schools in Anambra State. Specifically, this study seeks to;

1. Ascertain the effects of teaching methods in the academic achievement of students in public secondary schools in Anambra State.

Research Questions

For the achievement of the stated objectives, the following research question was formulated:

1. How do the identified teaching methods affect the academic achievement of students in public secondary schools in Anambra State?

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

Hypotheses

The following would be tested under 0.05 level of significant:

1. There is no significant difference of teaching methods on the academic achievement of secondary school students in Anambra State.

METHODS

In order to accomplish the purpose of this study, a quasi-experimental design was adopted. Quasi-experiments are studies that aim to evaluate interventions but that do not use randomization. The primary purpose of quasi-experimental design is to investigate cause-and-effect [relationships between variables](#) in real-world settings (Orodho et al, 2016). This study was carried out in Awka North, Anambra State. Awka North is a local government area in Anambra State, Nigeria. The population of this study comprised all the senior secondary school students in Awka North, Anambra State. However, the respondents used in this study were drawn from the population using random sampling technique. Reliability was done using test re-test method by administering the questionnaires to the respondents and after two (2) weeks, the questionnaires were re-administered again to the respondents with the same characteristics. To ensure the validity of the instrument, the researcher's supervisor scrutinized the questionnaire to ensure its accuracy and made corrections where necessary. Data was analyzed using inferential statistics and the results were presented in tabular forms.

Research Question One

How do the identified teaching methods affect the academic achievement of secondary school students in Awka North, Anambra State?

Table 1: Responses of the Teachers and Students on how the identified Teaching Methods affect the Academic Achievement of Secondary School Students in Awka North, Anambra State

S/N	Items	5 SA	4 A	3 UN	2 D	1 SD	F	$\sum FX$	$\bar{X}$	Decision Rule
1	Students-centered method of teaching aims at developing learner's autonomy and independence.	350	160	27	14	0	551	126	4.3	Accepted
2	Students-centered method of teaching stimulates students thinking and learning abilities through asking of questions.	300	180	60	2	0	542	126	4.3	'Accepted
3	Students-centered approach makes the students to participate fully in the learning process.	345	140	45	14	0	544	126	4.3	Accepted
4	Students with prior knowledge on the topic can contribute in students-centered method of learning.	400	120	27	14	0	561	126	4.5	Accepted
5	Teachers-centered method of teaching gives no room for active participation of learners.	450	120	18	0	0	588	126	4.7	Accepted
6	Teacher-centered method of learning can be boring for students as it does not allow them to express themselves.	225	260	30	2	5	522	126	4.1	Accepted
7	Discussion method of teaching enhances presentation of ideas in a logical form.	275	180	45	12	5	517	126	4.1	Accepted

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

8	Discussion method of teaching promotes the students' depth of understanding and grasp of the subject matter.	300	180	45	10	1	536	126	4.3	Accepted
9	Demonstration method of teaching enhance students' academic achievement by making learners get the actual experience of what they are learning thus promoting their attention and retention.	250	240	30	12	0	532	126	4.2	Accepted
10	Lecture method of teaching enables the teacher to cover a lot of content in a short space of time hence increasing students' academic achievement.	0	28	27	16	70	285	126	2.5	Rejected

Source: Field Survey, 2025.

From table 1 above, it was demonstrated that the respondents accepted that students-centered method of teaching can influence the academic achievement of the secondary school students by developing their autonomy, stimulating their thinking and learning abilities through asking questions, making them to participate fully in the learning process and as well by making students with prior knowledge on the topic to contribute. It was also shown from the above table that the respondents accepted that teacher-centered method of teaching can influence the academic achievement of the secondary school students by giving no room for active participation of learners and making learning bored for students as it does not allow them to express themselves. It was also observed from the above table that the respondents accepted that discussion method of teaching can influence the academic achievement of the secondary school students by enhancing the presentation of ideas in a logical form and promoting the students depth of understanding and grasp of the subject matter. It was also demonstrated from the above table that the respondents accepted that demonstration method of teaching can influence the academic achievement of the secondary school students by making learners get the actual experience of what they are learning thus promoting their attention and retention. It was also revealed that the respondents did not accept that lecture method can influence the academic achievement of the secondary school students as it can only help the teacher to cover a lot of content in a short space of time with number below 3.0.

Table 1: Responses of the Teachers and Students on an Adopted Method of Teaching Can Influence Students Understanding of the Subject Matter.

Responses	Number of Respondents	Percentage (%)
Yes	119	94.4
No	7	5.6
Total	126	100

Source: Field Survey, 2024.

From the above table, it was discovered that 117 respondents representing 94.4% of the sample affirmed that an adopted method of teaching can influence students understanding of the subject matter while 7 respondents representing 5.6% of the sample did not affirmed that an adopted method of teaching can influence students understanding of the subject matter.

Summary of the Study

The different teaching methods used by the teachers of the secondary schools in in Awka North, Anambra State include students-centered method, discussion method and demonstration method of teaching. Students-centered method of teaching can influence the academic achievement of the secondary school students by developing their autonomy, stimulating their thinking and learning abilities through asking questions, making them to participate fully in the learning process and as well by making

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

students with prior knowledge on the topic to contribute. It was also shown that teacher-centered method of teaching can influence the academic achievement of the secondary school students by giving no room for active participation of learners and making learning bored for students as it does not allow them to express themselves.

DISCUSSION OF FINDINGS

The findings of this study were discussed in relation to the objectives, research questions, literature review and personal opinion. The result of this study from table 1 revealed that the different teaching method that affects the students' academic achievement used by the teachers of the secondary schools in Awka North, Anambra State include students-centered method, discussion method and demonstration method of teaching. These findings are in accordance with the findings of the study by Elvis, (2013) who carried out an investigation into the teaching methods and students' academic performance in a College in South Africa. He equally identified teacher-student interactive method, student-centered interactive method and teacher-centered approach as the method of teaching in his study area.

RECOMMENDATIONS

Based on the findings of this study, the researcher recommends that:

- i. There is need for the training of teachers on different methods of teaching for effectiveness of the content delivery; this will help the students to improve in performance.
- ii. Teachers should create an atmosphere conducive to learning in order to enhance the development of students' learning experiences.
- iii. Amongst others that teacher's method of teaching should be student friendly as this will enhance students' assimilation and performance in both internal and external examinations.
- iv. The changing nature of human needs and new trends indulge teachers as well as students in new complexities which needs research mindedness. So the researcher recommends that teachers should be motivate for conducting research studies in their respective fields which will not only help them in solving their own and students problems but will also develop them professionally.

REFERENCES

- 1) Adunola, O. (2011), "The Impact of Teachers' Teaching Methods on the Academic Performance of Primary School Pupils in Ijebu-Ode Local cut Area of Ogun State," Ego Booster Books, Ogun State, Nigeria.
- 2) Ayeni, A.J. (2011), "Teachers professional development and quality assurance in Nigerian Secondary Schools," *World Journal of Education*, 1(2):143-149.
- 3) Bharadwaj, B.K. & Pal, S. (2011). Mining Educational Data to Analyse Students' Performance, *International Journal of Advanced Computer Science and Applications*, 2(6):63-69.
- 4) Chang, Y. (2010). Students' Perceptions of Teaching Styles and Use of Learning Strategies, Retrieved from: http://trace.tennessee.edu/utk_gradthes/782.
- 5) Corneille, L. T., Simon, K. S. and Guillaume, B. B. (2017): Effectiveness of the Teaching Methods of Elementary Reading on Pupils' Academic Performance. 7(6): 112-123.
- 6) Elvis, M. G. (2013): Teaching Methods and Students' Academic Performance. *International Journal of Humanities and Social Science Invention*. Vol. 2 Issue 9// PP.29-35.
- 7) Hesson, K. & Shad, S. (2012). Teacher perspectives on integrating ICT into subject teaching: commitment, constraints, caution and change. *Journal of Curriculum Studies*, 37(2), 155-192.
- 8) Hightower, L.T. (2011). Critical issue: Using technology to improve student achievement. 37(2), 155-192. Subject teaching: commitment, constraints, caution and change. *Journal of Curriculum*
- 9) Ibeawuchi, A. R. (2012). An Examination of Teacher Qualifications and students Achievement in Mathematics etd. Auburn edu.ead/bit stream/handle/Richardson Antoine 8. pdf.
- 10) Ibekwe, L. (2015). *Classroom Overcrowding: it's not just a Numbers of Game*. K-12 News, Lessons & shared Resources by Teachers, for Teachers. 2009-2015.
- 11) Ibrahim, M. S., Hamza, M. Y., Bello, M. And Adamu, M. (2018): Effects of Inquiry and Lecture Methods of Teaching on Students' Academic Performance and Retention Ability Among N.C.E 1 Chemistry Students of Federal College of Education, Zaria. *Open Access Journal of Chemistry* Volume 2, Issue 3. PP 1-8

Effect of Teaching Methods on the Academic Achievement of Students in Public Secondary Schools in Anambra State

- 12) Ibukun, W.O. (2009). *Building the future: Invest in teachers now*. A paper presented at the Ondo State world teachers day Monday, 5th October.
- 13) Joel, S. M., David, M. M. and Stephen, N. M. (2018): Relationship Between Teaching Method And Students' Performance In Mathematics In Public Secondary Schools In Dadaab Sub County, Garissa County; Kenya. *Journal of Research & Method in Education*. Vol. 8. 5 PP 59-63.
- 14) Mojtaba, E., Mohsen, M., Bahman, C., Ahmadrza, S. R., Hosein, R. K. and Vahid, J. (2016): Relation between Teaching Methods Versus Academic Achievement of Students. *The Caspian Sea Journal*. Vol. 10, Issue 1. 353-355
- 15) Osuala, B.O. and Maduabum, M. A. (2012). Teachers' qualification and experience as correlates of secondary school student achievement in Biology. *Journal of Education Though*. 1(2): 176-183
- 16) Tebabal, A. & Kahssay, G. (2011), "The effects of student-centered approach in improving students' graphical interpretation skills and conceptual understanding of kinematical motion," *Lat. Am. J. Phy. Edu*, 5(2): 374-381.
- 17) Yadar, N. (2014). *Teaching of History*. Anmol Publications: New Delhi



There is an Open Access article, distributed under the term of the Creative Commons Attribution – Non Commercial 4.0 International (CC BY-NC 4.0)

(<https://creativecommons.org/licenses/by-nc/4.0/>), which permits remixing, adapting and building upon the work for non-commercial use, provided the original work is properly cited.