

# Use of Instructional Materials as Predictors of Students' Academic Achievement in Civic Education in Public Mission Secondary Schools in Anambra State

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**Abstract:** The study examined the level of predictive ability of instructional materials in determining the academic achievement of students in learning civic education in public mission secondary schools in Anambra State. The research was conceptualised by two research questions, and the null hypotheses were tested against each other at 0.05 significance level. The correlational research design was used. The population used in the study consisted of 4,541 SS2 students in selected 44 public mission secondary schools that were located in the six educational zones of Anambra State. The simple random sampling was used to choose a sample of 454 SS2 students. The gathering of data was done using the Instructional Materials Questionnaire (IMQ); the academic achievement of students in civic education was operationalised by using their Scores of the Academic Performance (SAPS). The IMQ was face and construct validated. The Trial-tested data were reviewed using the Cronbach alpha and the coefficient of 0.81 showed that the data were highly internally consistent and would be applicable in the current study. The source of simple linear regression was employed in answering the research questions and testing the null hypotheses at the 0.05 level of significance. The findings showed that audio and visual instructional materials made positive and significant prediction of academic achievement of students in civic education in public mission secondary schools in Anambra State. The research also found out that the use of instructional resources is a salient predictor of the performance of students in the area of civic education in public mission secondary schools in Anambra State. Based on these results, the study proposes that teachers in public mission secondary schools within the Anambra State should establish and implement audio and visual based educational resources that can promote active learning and instructions in a collaborative manner among students.

**Keywords:** Instructional materials, students' academic achievement, civic education

## Introduction

The quest towards productive citizenship has become a dominant factor at each tier of the national education system whose absence would make the targets of development in the country look insignificant. This highlights the fact that survival of any given society is dependent on education. Essentially, all types of development such as human, political, economic, social and intellectual are based on education. According to Okaforcha and Ifediorah Okeke (2025), it is a cumulative sum total of all mechanisms of how children, youths, or adults develop talents, attitudes and behaviours that reflect positive values, and eventually become governed citizens in the society.

Teachers can do important roles in ensuring the reduction in performance of students is mitigated. Ughamadu et al. (2021) and Onyeka et al. (2021) noted that the educators are supposed to use methods that enable students to be an active part of the teaching and learning process. The lesson/instruction exercise should take into account the classroom dynamics. Similarly, Adinna et al. (2021) and Onyekazi et al. (2022) stated that classroom instruction should be aimed at maximising the outcomes in line with societal demands. According to Udedike et al. (2022) teachers apply methods of teaching that encourage interaction between learners and advance intra-classroom relationships.

As a result, schools will be placed in strategic position to determine the fate of the students and even their countries. According to Okafucha and Ifediorah Okeke, proper teaching is based on good professional ethics that are effective and will attract interests of students (2025). According to Manafa and Adinna (2023), teachers have the responsibility to guide proper learning and transfer of the needed knowledge and skills. According to Ezeaku and Obi (2025), there is an urgency to provide the teachers with a significant resource that facilitates their professional and legal mandates to protect the quality of the academic achievement in the subjects.

The academic achievement (as a measure of teacher-prepared assessments) is an indicator of knowledge, skills, and accomplishments of students in the area of civic education, which is a critical measure of the learning outcomes not only in the field of civic education

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but in other disciplines. Adinna et al. (2025) argued that academic achievement/performance is conditioned by the level of intellectual stimulation triggered by situations of learning. The desire to be excellent has permeated to all individuals and Mbam and Olusanya (2025) noted that the excellence level is the main form of excellence, be it in the classroom or outside the classroom as witnessed in academic performance. Adinna and Okafor (2023) believed that academic performance of a child reflects the learning results, which are knowledge, skills, and ideas, learned and stored under the influence of coursework in the inside and outside classroom. Adinna and Anene (2024) insisted that the issue of academic performance continues to be one of the main concerns of schools and families, and parents and teachers play a pivotal role in developing favourable learning attitudes in students.

Students and their academic achievement attract the concern of their parents, teachers, school administrators and the entire society. Stakeholders are interested in the academic results of a child as early as the first day he/she enters the school and continues studying. Adinna and Anokwute (2023) noted that the basic purpose of schooling is to instil knowledge necessary in the development of a student cognitively, emotionally, and socially. Mmonwuba and Adinna (2025) stated that in an academic based society, success comes hand in hand with the achievement of respect. It is a widely known fact that the failed examination at the end of the year can actually declare a student as academically retarded despite the significant achievements in other spheres (Ezeaku & Obunike, 2024). However, the conceptual knowledge still qualifies as a pre-condition to excellent academic performance, and it is therefore necessary that teaching resources are not neglected constituent of the civic education acquired at mission secondary school in Anambra State.

The academic achievement focus in the world today has motivated a number of researches to investigate the antecedents of performance. As Okaforcha (2024) emphasised to determine the academic performance properly, regular assessment and evaluation of students' skills and knowledge through tests and examinations are necessary to measure their level of knowledge and competence in the subjects. Although of crucial importance, Okaforcha and Nwafor (2024) cited West African Examination Council (WAEC) reports (20222024) lamenting that academic achievement of certain students in the Anambra State public secondary schools is decreasing. Within the area of civic education, the performance rates are below 50 percent, which is considered to be poor in terms of an otherwise important subject that helps students develop the necessary skills in the area of future activities. This negative trend proves that agile correction is required. The teachers have embraced different approaches as a result of cluster PD programmes, but such outcomes have not produced positive results in terms of civic education performance, according to the chief examiner of the WAEC (WAEC, 2024). Therefore, the significant efforts are still critical to improve the civic education performance of the students.

The degree to which a student attains learning objectives form the good performance in academics, in terms of grades, classroom attendance and understanding of the content. However, conceptual mastery is something that cannot be overlooked; Onyekwelu and Adinna (2022) argued that the usage of instructional materials should not be ignored. These materials are the fundamental instruments of teaching and learning, which improve teacher effectiveness and learning among students in civic education.

The materials used in the classroom situations to demonstrate the instructions practically are called the instructional materials used by learners and teachers. They consist of devices or objects, which can enable logical provision of lessons. In their argument, Okaforcha et al. (2025) suggested that instructional resources include all material and non-material objects, such as drawn or photographic, manual or electronic materials, as well as books and associated materials that are used during the teaching-learning process. They also emphasised that these resources are textbooks, classroom furniture, computers and other equipment that is necessary in facilitating intrigue and teaching.

Instructional resources also bring learning to the next level where it becomes more practical, and the teaching process is more interesting, accessible, and enjoyable. The application of these resources in the process of civic education in the Anambra State encourages, arouses and draws students in the presented topics. Obiolor et al. (2025) observed that instruction resources awaken the urge of the students to study, which facilitates the learning process because the assimilation and memorization of the information becomes easy, besides helping to maintain attention during the lessons. Chikendu and Ekoyo (2024) affirmed that these materials are facilitating learning accessibility, control their instructional rates, and improve conceptual knowledge to reduce difficulties in delivering civic lessons.

In this paper, instructional materials have been described as such that enable teachers to be effective and maximise student learning. They include human and non-human resources which facilitate, encourage, and improve the teaching-learning processes in civic education. This paper was limited to audio and visual instructional materials.

The resources are audio instructional materials that are used to pass information and provide learning on the auditory medium. They can be in the form of recorded lectures, podcasts, audiobooks, language learning programmes or audio guides. They were defined by Uzokife and Mbonu (2023) as resources, mostly provided via sound; thus, allowing learners to study and learn orally. These media tap the strength of sound to convey information, support and guidance in every field of study to create a versatile and

interactive learning method that develops a deeper comprehension and memorability. Nwana and Okeke (2024) considered them to take the form of content that is delivered in the form of an audio prediction recorded lecture, audio books or audio-casts that enable learners listen and retain information, and this strengthens knowledge.

Visual instructional materials are materials that facilitate teaching and learning by use of visuals to pass information. They increase concept comprehension and process by visual perception. Ekaette-Nkok (2024) described these materials as any learning material with visual elements, i.e. images, diagrams, charts, videos. Okechukwu et al. (2024) extended this definition to include different visual aids that are used in instructional processes. As it was stressed by Ifediorah Okeke and Okaforcha (2025), such materials might make the learning process more interesting because they provide visual images that facilitated understanding and memorising.

Instructional materials incorporated in the process of teaching civic education make learning easier and bring the desirable transformations in the teaching process. As Okoye and Ezeaku (2025), Okaforcha et al. (2025) and Obiolor et al. (2025) state, governmental investment in public secondary schools is not enough, the funds are not managed properly, and there is a shortage of prerequisite knowledge among teachers, thus making proper use of the provided instructional material unfeasible. As a result, they find it difficult to be interested in civil education and this results to a lack of interest in students. This problem can be partially explained by the fact that that civic education instructors tend to fall into the verbalistic, theoretical approach, which can be limited to inadequate access to and poor utilisation of education resources. Based on this, this study was meant to test the capacity of instructional resources to forecast academic results of students in civic education in the public mission secondary schools in Anambra State.

### **Purpose of the Study**

The main purpose of the study is to examine the use of instructional materials as predictors of students' academic achievement in civic education in public mission secondary schools in Anambra State. Specifically, the study sought to:

1. Find out the predictive value of audio instructional materials on students' achievement in civic education in public mission secondary schools in Anambra State.
2. Determine the predictive value of visual instructional materials on students' academic achievement in civic education in public mission secondary schools in Anambra State.

### **Research Questions**

The following research questions guided the study:

1. What is the predictive value of audio instructional materials on students' achievement in civic education in public mission secondary schools in Anambra State?
2. What is the predictive value of visual instructional materials on students' achievement in civic education in public mission secondary schools in Anambra State?

### **Hypotheses**

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

1. Audio instructional materials do not significantly predict students' academic achievement in civic education in public mission secondary schools in Anambra State.
2. Visual instructional materials do not significantly predict students' academic achievement in civic education in public mission secondary schools in Anambra State.

### **Method**

This research was carried out in the public mission secondary schools in Anambra State. The study was guided by two research questions that were answered, and there were two null hypotheses that were tested at the level of significance of 0.05. The research design adopted by the researcher was a correlational research design. The study population was 4,541 SS2 students, 2,003 of them males and 2,538 of them female, who attended 44 public mission secondary schools in the six educational zones of Anambra State. The study conducted using a simple random sampling method was used to draw a sample of 454 SS2 students. The Instructional Materials Questionnaire (IMQ) was used in data collection and Academic Performance Scores (SAPS) of students in Civil Education in measuring the academic achievement of students in the study areas. The instrument was subjected to face and construct validation. Face validation was done by three experts, two in Arts and Social Sciences Department and one in Measurement and Evaluation in

Educational Foundations Department, all in the Faculty of Education, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus while construct validation was carried out with the help SPSS version 26.0 and the result showed that the construct validity was met. The construct validation was done using SPSS version 26.0 whereby the results indicated the construct validity. Trial test data were then subjected to internal consistency reliability assessment in terms of the Cronbachs Alpha and average coefficient of 0.81 of the IMQ was obtained thus indicating great reliability and applicability to the study. The researcher with the help of two research aids made visits to the public mission secondary schools. Of 454 copies of test instruments that had to be administered, 448 (99%) were not returned properly and in full. Simple linear regression was used to answer the research questions and test the null hypotheses with the level of significance of 0.05.

### Data Analysis

**Research Question One:** What is the predictive value of audio instructional materials on students' academic achievement in civic education in public mission secondary schools in Anambra State?

**Table 1:** Summary of Simple Regression Analysis on the Predictive Value of Audio Instructional Materials on Students' Academic Achievement in Civic Education in Public Mission Secondary Schools in Anambra State

	Unstandardized		Std. Dev.	Standardized	Remark
	B	$\beta$	B		
Constant	27.310	5.069			
<b>Audio materials</b>	0.568	0.473	0.547		<b>Positive predictor</b>
R	0.547				
R <sup>2</sup>	0.502				
Adj. R <sup>2</sup>	0.481				

As the summary of the simple regression analysis below Table 1 shows, the simple regression line has a positive intercept, as is represented by the constant of 27.310. This implies that, other things being equal or adjustment to the effect of audio instructional resources being factored out, the average academic achievement in civic education would be about 27 percent. The model also shows that inclusion of audio instructional materials has statistically significant positive influence on the academic achievements of the students with civic education in the public mission secondary school of Anambra State with regression coefficient (R = 0.547). Additionally, the uniform beta coefficient (b = 0.547) supports the fact that audio instructional materials are a positive predictor in this light. As a result, an enhancement in the utilisation of audio instructional material by a unit translates to a rough 55 per cent enhancement in the academic performance in civic education amongst these schools.

The coefficient of determination (R<sup>2</sup> = 0.502) shows that the explanatory influence of the independent variable is fairly strong; approximately fifty percent of the variability in academic performance of the students may be explained by the difference in the use of audio instructional media. This can be further supported by the adjusted R<sup>2</sup> which was 0.481 showing that about forty-eight percent of total variance of academic performance was explained by the same explanatory variable in the public mission secondary schools of Anambra State.

**Research Question Two:** What is the predictive value of visual instructional materials on students' academic achievement in civic education in public mission secondary schools in Anambra State?

**Table 2:** Summary of Simple Regression Analysis on the Predictive Value of Visual Instructional Materials on Students' Academic Achievement in Civic Education in Public Mission Secondary Schools in Anambra State

	Unstandardized		Std. Dev.	Standardized	Remark
	B	$\beta$	B		
Constant	32.590	3.162			
<b>Visual materials</b>	0.651	0.327	0.618		<b>Positive predictor</b>
R	0.618				
R <sup>2</sup>	0.546				
Adj. R <sup>2</sup>	0.509				

As observed in the summary of the simple regression analysis in Table 2, the regression line has a positive intercept as seen in constant term of 32.590. This intercept indicates that under other conditions (other variables being held constant), under the expected academic achievement in civic education, the attribution of standard level of visual instructional materials is about 33 percent. The review has also shown that visual instructional materials have a positive relationship with the achievement of students on civic education in secondary schools run by the missionaries in Anambra State and the R value = 0.618. In line with this, the increasing relationship of prediction is verified by the standardised beta coefficient, b = 0.618. Therefore, the use of the materials in visual instruction related to increase in 1 unit in the application corresponds to an increase in the academic performance of students in civic

education by 0.618 (62 percent). The coefficient of determination,  $R^2 = 0.546$ , suggests that the predictor and its explanatory power is moderately good; around 55 percent of the differences in the performance of students on their academic achievement can be related to changes in the utilisation of visual instructional materials. This is supported by the adjusted  $R^2$  that indicates a correlation between the variable of visual instructional material and 51percent of the total variance in the academic achievement.

### Test of Hypotheses

#### Hypothesis One

$H_{01}$ : Audio instructional materials do not significantly predict students' academic achievement in civic education in public mission secondary schools in Anambra State.

**Table 3:** Test of Significance on the Simple Regression Analysis on Significant Prediction of Audio Instructional Materials on Students' Academic Achievement in Civic Education in Public Mission Secondary Schools in Anambra State

	Unstandardized $\beta$	Std. Dev. $B$	Standardized $\beta$	t-value	p-value
Constant	27.310	5.069		21.702	0.000
<b>Audio materials</b>	0.568	0.473	0.547	18.113	0.000
R	0.547				
$R^2$	0.502				
Adj. $R^2$	0.481				
F	33.287				0.000

According to the table of the result of the test of significance of simple regression analysis, Table 3, the simple regression coefficient ( $R$ ) = 0.547, the coefficient of determination ( $R^2$ ) = 0.502, and the adjusted  $R^2$  = 0.481. The F-ratio used to identify the regression is 33.287, the t-statistical value is 18.113 and the p-value stand at 0.000. Because this p-value is far below the traditional alpha (0.05), we reject  $H_0$  the audio instructional materials have no significant effect on the academic performance of students in civic education of the public mission secondary schools in Anambra State and accept  $H_1$  therefore.

#### Hypothesis Two

$H_{02}$ : Visual instructional materials do not significantly predict students' academic achievement in civic education in public mission secondary schools in Anambra State.

**Table 4:** Test of Significance on the Simple Regression Analysis on Significant Prediction of Visual Instructional Materials on Students' Academic Achievement in Civic Education in Public Mission Secondary Schools in Anambra State

	Unstandardized $\beta$	Std. Dev. $B$	Standardized $\beta$	t-value	p-value
Constant	32.590	3.162		23.907	0.000
<b>Visual materials</b>	0.651	0.327	0.618	20.892	0.000
R	0.618				
$R^2$	0.546				
Adj. $R^2$	0.509				
F	38.502				0.000

In order to summarise the results of the significance tests conducted of the simple regression model presented in Table 4, the estimated value of the correlation coefficient (R) is 0.618, which generates an  $R^2$  of 0.546 and an adjusted  $R^2$  of 0.509. The corresponding F -ratio of the model as a whole is 38.502, the t -statistic of the regression coefficient is 20.892 and the p -value is effectively zero ( $p = 0.000$ ). Since the p-value is much less than the standard alpha of 0.05, we reject the null hypothesis that the visual instructional materials do not significantly predict the academic achievement of students in terms of civic education in the public mission secondary schools in the State of Anambra. As a result, the null hypothesis is dismissed in favour of the alternative: the visual instructional materials in fact have a strong influence on the academic achievement among students in the given context.

### Discussion of Findings

The results on the predictive prowess of audio instructional materials on the academic achievement of students in civic education in public mission secondary schools in Anambra State showed that the predictive prowess of use of audio instructional materials has a favourable predictive value of 0.547 (55%) on students' academic achievement in civic education in public mission secondary schools in Anambra State. This means that a one unit increase in the use of audio instructional material in teaching civic education would inspire a 55% growth of the academic standards of students with civic education in the secondary schools of

Pennsylvania mission in Anambra State, and the converse. The research also established that the use of audio instruction materials is an important indicator in the academic performance of students in civic education in the public mission secondary schools in the Anambra State. The observation is consistent with results of Uzokife and Mbonu (2023) who found out that, instructional resources like microphones, songs and rhymes, listening games, and human voice, determine the achievement of the students in the public secondary schools. Ezenwobodo (2023) also provides proof to the finding when he confirmed the utility of audio instructional contents in positively influencing the listening ability of children and consequently, their academic result in secondary schools. In the same way, Obiolor et al. (2025) noted that the use of audio instructional materials such as CD players, microphones, gramophone records, human voice, and audio tape recorders had significant impacts on students through their academic performance in high schools. The agreement between these works may be explained by the fact that these materials have some special benefits in learning, and the most significant of them is that they involve the auditory mode of learning, improve the retention of material and can be used by non-specific learners.

The results of predictive value of visual instructional materials on the student academic achievement in civic education in the public mission secondary schools of Anambra State showed that, there is a positive predictive value of the use of visual instructional materials in civic education in public mission secondary schools Anambra State, with the predictive value being 0.618 (62.97). As another outcome, where teachers keep using visual teaching tools to facilitate the teaching of the civic education, the achievement of students in terms of participating in the learning of the civic education subject is expected to increase at a rate of 62%, and a decline in the use of the tools is also expected to have a similar result on the performance of the students. The study also suggests that the application of the visual instructional resource would be used likely to predict the performance of students in civic education in the public mission secondary school in the State of Anambra. This observation complies with Okechukwu et al. (2024), who indicated that instructional resources that are presented visually generate an active participation in the classroom activities among students, thus positively relating to their performance in the public mission secondary schools. Similarly, Okaforcha et al (2025) noted that in classroom learning, visual learning materials enable students to be more active and interested that results in improved academic performance. The findings are in agreement with Mbam and Olusanya (2025), who have proven that paintings, photographs, blackboard, and learning colourful posters promote learning that is stimulating and motivates students. Moreover, Okonkwo (2025) revealed that the involvement of visual aids in the process of teaching and learning activities allows engaging students in the process, which in turn affects the performance/achievement. The fact that these studies were similar could be attributed to the necessity of visual aids in the learning and teaching process where teachers should innovate and use visual supports in giving lessons in public mission secondary schools Anambra State.

### Conclusion

This paper concludes that instructional material is an important variable that predicts favourably the academic achievement of students in civic education in any individual public mission secondary school in the State of Anambra.

### Recommendations

The group of recommendations in question is based on the findings of the conducted research and is as follows.

- 1) The teachers in the state of Anambra secondary schools have to design and introduce audio teaching tools in learning in the classroom which will enable the learners fully engage and participate in the learning process through interaction as well as team learning. This strategy should improve listening capabilities of students, encourage creativity, and improve academic achievements of students in general.
- 2) Teachers in the Post Primary Education schools should be afforded an opportunity of continuous training and professional growth opportunities that will be geared towards the successful integration of audio-visual materials in the instructions of civic education. The focus of this training must be on the proper choice, adjustment, and adaptation of multimedia resources with different learning styles and preferences.

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