

Instrumental Support and Dietary Habits as Predictors of Academic Achievement in Civic Education Among Senior Secondary School Students in South East, Nigeria

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Article History	Abstract
Original Research Article	<i>Instrumental support and dietary habits as predictors of academic achievement among secondary school students in civic education subject in southeast, Nigeria The study was guided by two research questions and 2 null hypotheses. A descriptively correlational survey research design was employed. The study utilized a multistage sampling design in selecting 2,856 SS II students from the population of 57,120 SS II students offering Civic Education in public secondary schools across the five states of South East, Nigeria. We used three instruments for data collection, these are the Instrumental Support Scale (ISS), Dietary Habits Scale (DHS) and The Civic Education Achievement Test (CEAT). The instruments were subjected to validation by three experts in Guidance and Counselling, Educational Psychology and Measurement and Evaluation, from the College of Education, Michael Okpara University of Agriculture, Umudike. For ISS and DHS, Pearson Product-Moment Correlation yielded stability coefficients of 0.83 ($p < 0.001$) and 0.82 ($p < 0.01$), while Cronbach's alpha provided reliability estimates of $\alpha = .73$ and $\alpha = .81$, respectively. C. CEAT: Kuder-Richardson 21 was used to identify the internal reliability of CEAT, and the coefficient was found to be equal to 0.79. Analysis of Suzanne's data was performed at the 0.05 significance level using Pearson Product-Moment Correlation, coefficient of determination (R^2), linear regression, and multiple regression. Result: Instrumental support was the strongest predictor to civic education results (39.5%), and so did diet quality index-12 (diet habits, 27%) of it on academic achievement. The study concluded that appropriate education on both instrumental support and healthy consumption behavior are important factors for the successful academic success of secondary school students.</i> Key words: Instrumental Support, Dietary Habits, Civic Education.
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Copyright © 2026 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited. Citation: Otto, John E; Prof. R.N. Uzoka, & Dr. J. E. Uroko. (2026). Instrumental support and dietary habits as predictors of academic achievement in civic education among senior secondary school students in South East, Nigeria. UKR Journal of Education and Literature, 2(4), 146-152.	

Introduction

Education serves as a functional pillar in the development of individuals and societies. It provides learners with the cognitive, emotional and social tools required to function effectively within their communities, understand their rights and responsibilities and contribute meaningfully to national development. However, Civic Education, as a subject, is pivotal because, it lays the groundwork for promoting civic responsibilities, democratic principles and national consciousness among students. Thus, Civic Education is broadly defined as the process through which young citizens, are informed about the values, norms, rights

and responsibilities necessary for active participation in the democratic governance and public life.

According to Zalta and Nodelman (2018), Civic Education is defined as a purposeful and systematic educational practice aimed at preparing individuals for meaningful participation in public life. This form of education does not only include teaching about the functions of political institutions, rights and responsibilities of citizens, but also emphasizes on fostering civic virtues such as public-mindedness, tolerance and commitment to justice. In the view of Zalta and Nodelman, Civic Education prepares

learners to engage in reasoned deliberation, understand political obligations and contribute meaningfully to the common good of man. It may be delivered formally in schools or informally through civic associations, community organizations and social networks that support democratic learning and engagement. In the context of this study, Civic Education could be defined as an intentional and organized process through which learners attain the knowledge, skills, values and attitudes necessary for meaningful participation in a democratic society.

In Nigeria, the Federal Ministry of Education defines Civic Education as a compulsory subject designed to nurture national consciousness, ethical reasoning, human rights respect, and democratic participation. The Nigerian Educational Research and Development Council (NERDC, 2020, 2015) stressed its role in promoting patriotism, rejecting corruption, embracing diversity, and fostering unity in a multi-ethnic society. Civic Education in Nigeria extends beyond theoretical instruction, integrating practical skills such as public speaking, negotiation and leadership, alongside with civic values such as respect for the rule of law, tolerance, and behaviours including peaceful protest, voting, and volunteering, to foster active, informed citizenship (Ajayi & Alade, 2022). It bridges the gap between civic knowledge and engagement, promoting political socialization, youth empowerment, and social cohesion through civic knowledge, skills, and dispositions such as critical thinking, advocacy, justice, and ethical responsibility (Udogu & Onuigbo, 2021; Oyetunde & Audu, 2019; Adebani, 2017).

However, despite its potential in shaping students' knowledge, values, and commitment to national development, challenges such as inadequate resources, insufficient trained teachers, limited practical application, limited instructional time, low student literacy levels and disconnection from real-world civic life hinder its effectiveness (Akajiri, 2024; Class Prefect, 2020). Without addressing these issues, the quality of Civic Education may deteriorate, potentially impacting students' academic achievement and impeding the nation's socio-economic and technological progress.

Academic achievement within the ambient of Civic Education encompasses students' mastery of civic knowledge, skills, and values, as well as their ability to internalize democratic ideals such as justice, human rights, patriotism, and civic responsibility (Okafor & Nwankwo, 2020). In the context of this study, academic achievement is conceptualized as the degree to which students have attained the intended learning outcomes in Civic Education. It is typically reflected in students' test scores, examination results, and general classroom performance.

Furthermore, factors like students' interest in national issues, teaching methods employed, availability of instructional materials, socio-political awareness, and the integration of real-life civic experiences into the curriculum can influence academic achievement in Civic Education (Chukwuemeka & Adeosun, 2021). Thus, poor student achievement in Civic Education has become a worrying concern among educators and stakeholders. Moreso, concerted efforts have been put up by Governments and education stakeholders to tackle the situation by updating the curriculum, providing learning material, organized teachers training workshops and examination reforms, yet students performance in Civic education remains inadequate (Ayeni, 2021; Okoro & Musa, 2019). However, literature reports tend to suggest that instrumental support and dietary habits have the potentials for predicting the academic achievement of students in Civic Education (Olalekan, Oni, & Adeyemi, 2021).

Instrumental support refers to the tangible, measurable form of help given to accomplish tasks or meet specific needs that are external in nature, often in the form of material resources, services, goods, or assistance that help one directly to deal with situational demands (Schultz *et al.*, 2022). In educational settings, it refers to things such as providing textbooks, offering extra time for instruction, assisting students with homework, awarding scholarships, or providing any other resources that helps to eliminate impediments to learning (Malecki & Demaray, 2017). In the context of this study, instrumental support is defined as the practical help or tangible assistance that makes a person's daily life or goals easier to manage achievement in Civic education. This form of support is particularly important for students from economically disadvantaged social backgrounds, because it overcomes structural and financial barriers to academic engagement (Onyishi *et al.*, 2022).

Research consistently suggests that instrumental support from parents, teachers, and peers plays a significant role in academic achievement. Parental instrumental support was found to be significantly and directly impactful on students' learning engagement. Fan and Chen (2020) reported that access to school supplies, space for studying and parent's help with homework were significantly related to higher test scores and less absenteeism. These findings suggest that the provision of concrete resources removes barriers that might otherwise hinder learning especially in Civic Education. Empirical research highlights a significant correlation between social support and students' academic achievement. Wenlai in Ukessaya (2017) found out that parental involvement boosts students' learning engagement, resulting in positive student satisfaction, motivation and meaningful academic achievement. Similarly, Wenzel and

McNamka (2017) discovered that students with more attachment support are more likely to have better pro-social behaviour and academic outcomes. Students derive social support from various sources such as family members, peers, teachers, and community organizations. The family often acts as the most influential apparatus providing a ground of stability, support and inspiration to adolescents. Peer relationships, particularly within school environment create a sense of belonging and potentially reinforce positive academic behaviours (Amoako & Diko, 2020). The above empirical findings can be applied to Civic Education since students of Civic Education who received adequate instrumental support from parents, peers, teachers are likely to perform well in the subject. Apart from instrumental support, another factor that is suspected to predict academic achievement in Civic Education is Dietary habits.

Dietary habits include the routine choices, patterns, and contexts related to food selection, preparation and consumption that are influenced by cultural norms, socioeconomic status, education, family influence, and media exposure (Rathi *et al.*, 2020). Healthy dietary practices are characterized by adequate eating of fruits, vegetables, whole grains and lean proteins in appropriate amounts; enacting limits on saturated fats, sugars and sodium intakes that are so important for students' physical growth, cognitive development and academic success (WHO, 2020). Conversely, poor dietary habits, such as frequent consumption of fast-foods and sugar sweetened beverages or meal skipping are associated to obesity, metabolic diseases and cognitive ability deficiencies (Zhang *et al.*, 2019). In the context of this study, dietary habits refer to the routine choices and behaviours adopted by secondary school students concerning food consumption.

Empirical evidence tend to indicate that nutrient-dense diets, especially regular breakfast consumption, play a vital role in memory, attention and academic achievement within school-aged groups (Burrows *et al.*, 2017). In low- and middle-income countries like Nigeria, dietary behaviours are influenced by parental education, household income, school feeding programmes, and food availability, which directly impact students' energy levels, concentration, and learning outcomes (Onyemaobi & Alakija, 2023). Therefore, initiatives to promote healthy eating should be a coordinated efforts that involve families, schools, and policymakers in complementing sustainable nutrition practices that support adolescents' lifelong health and academic potential.

However, the researcher's knowledge of the importance of instrumental support and dietary habits in predicting the academic achievement of students, there is no study on the predictive value of instrumental support and dietary habits

on academic achievement in civic education among senior secondary school students in South East, Nigeria. Thus, this study was spurred on to assess the extent to which instrumental support and dietary habits could predict academic progress in Civic Education among senior secondary school students in South East, Nigeria.

Purpose of the Study

The purpose of the study was to examine the extent instrumental support and dietary habits act as predictors of academic achievement in Civic Education among senior secondary school students in South East, Nigeria. Specifically, the study sought to:

1. Determine the extent instrumental support predicts academic achievement of students in Civic Education.
2. Ascertain the extent dietary habits predict academic achievement in Civic Education.

Research Questions

The study was guided by the following research questions

1. What is the extent instrumental support serves as predictor of students' academic achievement in Civic Education?
2. To what extent do dietary habits predict students' academic achievement in Civic Education?

Hypotheses

The following hypotheses were formulated to guide the study and were tested at 0.05 levels of significance

HO₁: Instrumental support is not a significant predictor of academic achievement in Civic Education among senior secondary school students in South East, Nigeria.

HO₂: Dietary habits are not a significant predictor of academic achievement in Civic Education.

Methodology

The study employed a correlational research design based on 2 research questions and 2 null hypotheses. Method: The sample of the study comprised 2,856 students (1,168 female and 1,688 male) who were selected from a population of 57,120 Senior Secondary School II [SS2] students taking Civic Education in public secondary schools across the five states of South East Nigeria. Three instruments were developed: Instrumental Support Scale (ISS), Dietary Habits Scale (DHS) and Civic Education Achievement Test (CEAT). Three content experts served to validate the instruments: one in Guidance and Counselling, one in Educational Psychology, and another in Measurement and Evaluation. Pearson Product-Moment Correlation established the stability of ISS and DHS (reliability coefficients: 0.83 and 0.82). Cronbach's alpha were calculated to assess the internal consistency of their tool,

resulting in coefficients of 0.73 and 0.81 respectively. The reliability of CEAT was assessed with Kuder-Richardson 21 (KR-21) whereby the coefficient was found to be 0.79. Research questions related to this study were addressed using data analyzed through Pearson Product-Moment Correlation, Pearson r , and coefficient of determination (R^2), while null hypotheses were tested using either linear or multiple regression analyses at the 0.05 level of significance.

Table 1: Correlational Matrix of Relationship between Instrumental Support and Academic Achievement in Civic Education among Senior Secondary School Students

Model	R	R Squared	Adjusted R Squared
1	0.825	0.681	0.679

Data on Table 1 demonstrated that there was a favourable relationship between instrumental support and students' academic progress in Civic Education. This is demonstrated by the computed r of 0.825. The R^2 value obtained was 0.681, which showed that 68.1% of the variance in students' academic progress in Civic Education was explained by instrumental support. This also demonstrated

Results

The results from the data analysis are presented in the tables below

Research Question 1

What is the extent instrumental support serves as predictor of students' academic achievement in Civic Education?

that instrumental assistance predicted the students' academic progress in Civic Education to a very high extent.

To determine the relative contribution of instrumental support in students' academic achievement in Civic Education, the predictive value of instrumental support is presented as shown on the beta column of the Table 1.1.

Table 1.1: Relative Contribution of Instrumental Support in Students' Academic Achievement in Civic Education

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	T	
1(Constant)	3.345	.023		158.935	.000
Instrumental support of subjects	-.605	.028	0.825	-33.683	.000

Data on Table 1.1 showed that the predictive value of instrumental support was 0.825. The data suggested that instrumental support predicted the students' academic achievement in Civic Education to a very high extent.

Hypothesis 1: Instrumental support does not significantly predict students' academic achievement in Civic Education.

Table 2: Linear Regression on Instrumental Support as Predictor of Students' Academic Achievement in Civic Education

Variables	Model	Sum of Squares	Df	Mean Square	F-cal	Sig.	Dec.
IS and AA	Regression	1332.555	1	1332.555	3049.325	.000 ^a	S
	Residual	1244.455	2848	0.437			
	Total	2577.010	2847				

IS= Instrumental support, SAA = Students' academic achievement, Df= degree of freedom, F = F-calculated, Correlation is significant at the 0.05 level (2-tailed)

The data in Table 2 indicated that instrumental support was a strong predictor of students' academic progress in Civic Education. This is evidenced by the F- value 3049.325 which was significant at 0.000 and so significant at 0.05 levels. Therefore, the null hypothesis which indicated that

instrumental support does not significantly predicted students' academic progress in Civic Education was rejected. Thus, instrumental assistance was a major predictor of students' academic progress in Civic Education.

Research Question 2: To what extent do dietary habits predict students' academic achievement in Civic Education?

Table 3: Correlational Matrix of Relationship between Dietary Habits and Academic Achievement in Civic Education among Senior Secondary School Students

Model	R	R Squared	Adjusted R Squared
1	0.772	0.596	0.594

Table 3 data showed beneficial link between dietary habits and academic achievement of students in Civic Education. This yields a computed r of 0.772. The computed R^2 of 0.596 also showed that 59.6% of the variation found in students' academic achievement in Civic Education was explained by dietary habits. This further implied that eating habits largely affected students' academic performance in

Civic Education.

To determine the relative contribution of dietary habits in students' academic achievement in Civic Education, the predictive value of the dietary habits is presented as shown on the beta column of the Table 3.

Table 3.1: Relative Contribution of Dietary Habits in Students' Academic Achievement in Civic Education

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1(Constant)	3.335	.023		157.834	.000
Informational support of subjects	-.505	.018	0.772	-32.485	.000

Data on Table 3.1 showed that the predictive value of dietary habits was 0.772. The data suggested that dietary habits predicted the students' academic achievement in Civic Education to a high extent.

Hypothesis 2: Dietary habits are not a significant predictor of academic achievement in Civic Education.

Table 4: Linear Regression on Dietary Habits as Predictors of Students' Academic Achievement in Civic Education

Variables	Model	Sum of Squares	Df	Mean Square	F –cal	Sig.	Dec.
DH and AA	Regression	1342.545	1	1342.545	3079.232	.000 ^a	S
	Residual	1241.445	2848	0.436			
	Total	2583.990	2847				

DH= Dietary habits, SAA = Students' academic achievement, Df= degree of freedom, F = F-calculated, Correlation is significant at the 0.05 level (2-tailed)

Table 4 indicated that eating habits are major indicators of students' academic progress in Civic Education. The F-value of 3079.232 was significant at 0.000 and hence significant at 0.05 levels. Thus, the null hypothesis that food habits did not significantly affect academic achievement in Civic Education was rejected. Thus, students' eating habits were strong predictors of academic performance in Civic Education.

Discussion

The results of this study were explicated with respect to the hypotheses that have been proposed in correspondence to these research inquiries. Instrumental support predicted students' academic achievement on Civic Education to a

very large and statistically significant degree. This result is in agreement with previous study by Helena et al (2022) and Tracy et al. (2018). Helena et al. Amato et al. Findings indicated that perceived instrumental support (rather than emotional support) was positively associated with academic buoyancy, with medium and large effects in the two studies. In addition, academic buoyancy was positively related to academic engagement, effort, persistence, perceived importance of school, belonging at school; skills in academics; and participation in class and career aspirations. The study also offered preliminary support for academic buoyancy acting as a mediator in the relationship between perceived teacher support and academic outcomes. Similarly, Tracy et al. Using hierarchical regression analysis, Wong (2018), who examined the association between Mathematics achievement and teacher instrumental support and appraisal support showed that

while instrumental support was a positive predictor of Mathematics achievement, teacher feedback negatively predicted achievement.

It was also revealed in the findings that low level of eating habit accounted for a very high degree significant contribution to students, academic performance Civic Education. This is in line with the findings of Ankita et al. (2024), on the influence of the dietary pattern on academic performance and satisfaction in medical undergraduates. One of their results showed that students taking higher dietary habit scores resulted in better academic performance while poor dietary habits scored lower. Well-nourished students achieved a mean score of 583/900, moderately nourished students scored 550/900 and poorly nourished dietitians obtained a mean score of 520/900. This finding also is consistent with Resimo et al. Consequently, they carried out a research among college students in a private school which aimed to investigate the association between eating habits and academic performance (2024). Their findings showed a negative correlation between some eating patterns such as fuel, fun, fog and storm with academic performance concluding that poor dietary practices may negatively affect students' educational attainment.

Conclusions

This study investigated the extent to which instrumental support and eating habits predict academic achievement in Civic of secondary school students in South East, Nigeria. The study found that instrumental support was a very strong predictor of Civic Education academic achievement. Likewise, dietary habits were significantly predicted students academic achievement in Civic Education to a very great extent.

Educational Implications

The findings of this study have a lot of educational implications. Proper career guidance to secondary school students by the teachers and vocational guidance counsellors/psychologists could make them approach counselling with the diligence it deserves and encourage students for higher academic achievement.

Possession of good knowledge of instrumental support and dietary habits in predicting academic achievement as a factor could be considered in the recruitment of Guidance Counsellors/Psychologists in our school system especially at the secondary school level where students should be adequately prepared in making or taking decisions concerning their future career.

Recommendations

Based on the findings and their educational implications, the following recommendations were made:

1. Parents, teachers, classmates and friends should provide instrumental support such as (textbooks) to students since instrumental support significantly predicted students' academic achievement in Civic Education to a very high and significant extent.
2. Improving dietary habits should be encouraged to enhance cognitive functions and academic outcomes by emphasizing the need for better nutritional education and interventions in schools.

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