

**TEACHERS PERCEPTION ON EXTENT EXPERIENTIAL LEARNING
ENHANCES COGNITIVE DEVELOPMENT OF SECONDARY SCHOOL
STUDENTS IN ENUGU STATE**

¹Ijeoma Evelyn Animba

²Wellington, Tammy Iboma

³Wellington, Joy Tamunokorinama

^{1,2}Department of Educational Psychology, Faculty of Education,
Enugu State University of Science and Technology

³Department of Political Science,
Nigeria Defense Academy (NDA)

animba.evelyn@esut.edu.ng

Abstract

The study investigated teachers' perception on extent experiential learning enhances cognitive development of secondary school students in Enugu State. Two research questions was formulated to guide the study. This study adopted a descriptive survey research design. The study adopted a descriptive survey research design. The population comprised all 505 secondary school teachers from selected secondary schools in Nsukka Education Zone. A simple random sampling technique without replacement was used to select the schools, ensuring equal opportunity for all schools to be chosen. From each of the sampled schools, six teachers was randomly selected, bringing the total sample size to 120 teachers. Data were collected using researcher developed structured questionnaire titled "Teachers Perception on extent Experimental Learning influences Cognitive Development Questionnaire (TPELCDQ)". The instruments was validated by three experts—two from the Educational Psychology and one from Measurement and Evaluation from Enugu State University of Science and Technology (ESUT). Cronbach's Alpha was used to determine the internal consistency of the instrument, yielding a reliability coefficient of 0.83, indicating high reliability. A total of 120 copies of the questionnaire was administered to the respondents by the researchers. Data collected was analyzed using mean, and standard deviation. The study found among others, that many teachers believed that experiential learning enhances active engagement, critical thinking and problem solving, reflection, application of knowledge and creativity. Based on the findings, it was recommended among others that government and educational agencies should organize continuous workshops, seminars, and in-service training for teachers on the effective use of experiential learning strategies to enhance students' cognitive development.

Keywords: experiential learning, cognitive development, secondary school

Introduction

Education in the twenty-first century increasingly emphasizes not only the acquisition of facts, but the development of higher order cognitive skills-critical thinking, problem solving, transfer of learning, and the ability to learn independently. Experiential learning, a student-centered approach that emphasizes learning through direct experience and reflection, has attracted attention as a pedagogical strategy capable of stimulating these cognitive processes (Sanusi, 2017). Rooted in the works of educational theorists such as, John Dewey and David Kolb; experiential learning frames knowledge as constructed through active engagement. Learners test ideas by doing, reflect on outcomes, and refine understanding through interactive cycles of action and reflection. This approach contrasts with traditional, teacher-centered methods that tend to prioritize rote memorization and passive reception of information (Sanusi, 2017). The education system of a nation depends upon the culture and customs of the nation. A good education system is one which includes in it the moral values, culture, beliefs, and traditions of the society interlinked with technological ability. These

technological ability are passed on in schools by teachers.

Therefore, teachers' interest, expertise and experience in experiential learning approach is very crucial in successful implementation of this approach especially in the development of students' cognitive domain. Cognitive ability plays a crucial role in determining the academic success of children and adolescents (Kolb and Kolb, 2017). Research in this field has focused on two areas: general cognitive abilities and specific cognitive abilities, such as attention, memory, and reasoning. When it comes to general cognitive ability, some researchers consider it to be the same as general intelligence, while others consider it to be a combination of factors. Sanusi (2017) opined that cognitive ability is a direct predictor of academic achievement. This is because, higher cognitive ability allows students to focus on key information quickly and accurately, to memorize and encode more efficiently effectively through learning. This is the primary objective of experiential learning.

Experiential learning approach is "learning by doing" that promotes active-engaged learning. Coker and Porter (2015),

defined it as an engaged learning process whereby students “learn by doing” and by reflecting on the experiences accumulated through series of hands-on laboratory experiments, practical’s, field exercises, and studio performances. It is the creating of knowledge through the transformation of experience based on the perspective that learning is a holistic process that incorporates all one’s life experiences (Jennings and Wargnier, 2020). It is an instructional approach that encourages hands-on minds-on learning, actively involving learners in the teaching and learning process. Experiential learning approach was first introduced by David Kolb in 1984. Kolb emphasized that for students to expand their knowledge and practice problem solving, effective learning must go through four processes namely concrete experience, reflective observation, abstract conceptualization, and active experimentation. As an initial process, concrete experience learning emphasizes on individual learners being open-minded and able to adapt to a systematic approach to problem situations. In the reflective observation process, students observe simple demonstrations by displaying virtual visualizations as well as try to express opinions on why and how they can occur. As such, reflection is essential for transforming experience into learning as it allows one to question the validity and usefulness of

experiences. The abstract conceptualization process emphasizes on students understanding of concepts in general, referring to the processes known as cognitive development especially among adolescence (Jennings and Wargnier, 2020).

Cognitive development during adolescence, the age range covered by secondary schooling; is a critical period for consolidating higher cognitive functions. Adolescents make important advances in abstract reasoning, metacognition, decision-making and the ability to apply knowledge to novel situations. Educational environments and teaching methods that provide authentic, problem-based experiences can accelerate those gains by offering opportunities for learners to apply concepts in real contexts, receive immediate feedback, and develop strategies for independent learning. Experiential learning activities such as laboratory experiments, project work, simulations, community-based assignments and fieldwork naturally engage cognitive processes like hypothesis formation, analysis, synthesis and reflection (Jennings and Wargnier, 2020). In the Nigerian context, and specifically within Enugu State, secondary education faces a set of structural and pedagogical challenges. These include overcrowded classrooms, limited instructional resources, a predominance of

examination-focused curricula, and inconsistent teacher training on active learning methods (JMogbo, Okafor and Okafor, 2024). In many schools, the dominant pedagogical pattern remains lecture-based teaching with an emphasis on memorization for examinations. As a result, students may graduate with high scores, yet remain underprepared for tasks requiring application, critical thinking, and creative problem solving. Introducing and institutionalizing experiential learning practices offers a promising route to bridge this gap between examination performance and genuine cognitive competence (Jennings and Wargnier, 2020).

Similarly, experiential learning (EL), which has been linked with progressive education, has sometimes been criticized for its lack of focus on the effective delivery of specified knowledge (Kirschner et al., 2016). One major challenge is the lack of structured reflection within experiential learning activities. Reflection is the core of experiential learning, serving as the bridge between doing and understanding. Without guided reflection, students may engage in activities without making meaningful connections between experience and theory. This can result in rote performance of tasks rather than thoughtful analysis or evaluation, thereby limiting the development of critical

thinking skills (Kirschner et al., 2016). Another significant issue is the insufficient pedagogical competence of teachers in applying experiential learning strategies. Many teachers, especially in developing contexts like Nigeria, are accustomed to traditional, teacher-centered methods and may lack the training to design and facilitate experiential learning activities that genuinely stimulate critical inquiry. When experiential learning is poorly structured—focusing merely on “doing” rather than “thinking about doing”—students may fail to engage in the higher-order reasoning processes that nurture critical thinking. Therefore, the present study aim at identifying teachers’ perception on extent experiential learning enhances students’ cognitive development in Enugu State.

Statement of the Problem

Cognitive development is a central goal of secondary education, as it prepares learners to think critically, solve problems, and apply knowledge to real-life situations. In recent years, educational theorists and practitioners have advocated for experiential learning as an effective approach for enhancing students’ cognitive abilities through active participation, reflection, and application of knowledge. Despite its recognized benefits, the extent to which experiential learning contributes to students’

cognitive development in secondary schools within Enugu State remains uncertain. In many secondary schools across Enugu State, teaching and learning still rely heavily on traditional, teacher-centered approaches such as rote memorization, lecture methods, and note dictation. These methods often fail to stimulate learners' reasoning, analysis, and problem-solving skills—key components of cognitive development. Although the Nigerian education curriculum emphasizes learner-centered pedagogy, the practical implementation of experiential learning strategies is often limited by factors such as inadequate instructional materials, insufficient teacher training, large class sizes, and rigid assessment systems that prioritize factual recall over critical and reflective thinking.

Furthermore, while experiential learning is expected to enhance students' ability to understand and apply concepts, there is a lack of empirical evidence in Enugu State showing its actual effect on students' cognitive outcomes. It is unclear whether schools that employ experiential learning strategies achieve better results in students' reasoning, comprehension, and problem-solving abilities compared to those using conventional methods. This lack of evidence makes it difficult for educators and policymakers to justify the wider adoption of

experiential learning practices within the state's education system. Therefore, the problem of this study is the apparent gap between the theoretical benefits of experiential learning and its actual implementation and impact on cognitive development among secondary school students in Enugu State. It becomes imperative to investigate whether experiential learning enhances students' cognitive development.

Purpose of the Study

The general purpose of this study was to investigate teachers' perception on extent experiential learning enhances cognitive development of secondary school students in Enugu State.

Specifically, the study sought to:

1. find out extent teachers believe experiential learning enhance students' cognitive development in Secondary Schools in Enugu State
2. describe challenges teachers face in implementing experiential learning for cognitive development in Enugu State

Research Questions

The study was guided by the following research questions:

1. To what extent do male and female teachers believe experiential learning enhance students' cognitive development in Secondary Schools in Enugu State?
2. What are the challenges male and female teachers face in implementing experiential learning for cognitive development in Enugu State?

Method

This study adopted a descriptive survey research design. The population comprised all 505 secondary school teachers from selected secondary schools in Nsukka Education Zone, which includes Nsukka town, Opi, Ede-Oballa, Aru uno, Edem, Obimo, and Eha- Alumona. A simple random sampling technique without replacement was used to select 20 out of the 56 secondary schools, ensuring equal opportunity for all schools to be chosen. From each of the 20 sampled schools, six teachers were randomly selected, bringing the total sample size to 120 teachers (male 90, female 30). Data were collected using researcher developed

structured questionnaire titled “Experimental Learning on Cognitive Development Questionnaire (EELCDQ)”. The instrument was validated by three experts—two from Educational Psychology, and one from Measurement and Evaluation from Enugu State University of Science and Technology (ESUT). Cronbach Alpha was used to determine the internal consistency of the instrument, yielding a reliability coefficient of 0.83, indicating high reliability. A total of 120 copies of the questionnaire was administered to the respondents by the researchers. Data collected was analyzed using, mean, and standard deviation. A mean benchmark of 2.50 and above was used to determine accepted items, while items with a mean value of 2.49 and below were rejected. The response formats used for the research questions were as follows; for extent experiential learning influence cognitive development, Likert scale of very high extent (VHE = 4), high extent (HE = 3), low extent (LE = 2), very low extent (VLE = 1) was used. Meanwhile on challenges for using experiential learning for cognitive learning outcome, the Likert scale was strongly agree (SA), agree (A), disagree (D), and strongly disagree (SD).

Results

Research Question 1

To what extent do male and female teachers believe experiential learning enhance students' cognitive

development in Secondary Schools in Enugu State?

Table 1: Mean response on extent male and female teachers believe experiential learning enhance students' cognitive development in secondary schools

ITEMS		Male Teachers 90		Female Teachers 30		Overall 120		
S/N		$\bar{X}$	SD	$\bar{x}$	SD	$\bar{\bar{x}}$	SD	Dec
1	experiential learning enhances students' cognitive development through: Active Engagement	2.60	.98	2.55	.93	2.58	.96	HE
2	Critical Thinking and Problem Solving	2.57	.89	2.51	.92	2.54	.91	HE
3	Reflection	2.56	.95	2.55	.89	2.56	.92	HE
4	Application of Knowledge	2.59	.92	2.54	.91	2.57	.92	HE
5	Creativity and Innovation	2.50	.93	2.54	.85	2.53	.89	HE
Cluster Mean/SD		2.57	.92	2.56	.90	2.57	.92	HE

Data analysis on Table 1 above shows the mean response on experiential learning influence on students' cognitive development in secondary schools. In the above Table, male teachers mean ranged from 2.50 to 2.64, while the female teachers mean ranged from 2.51 to 2.61. The values of their cluster means are 2.57 and 2.56 with standard deviations of .92 and .90 respectively. However, their overall mean ranged from 2.53 to 2.60 with cluster mean of 2.57 and standard deviation of .92. The finding of the study signifies that male and female teachers

believe experiential learning strategies enhances students' cognitive development in secondary education in Nigeria to a high extent. The standard deviations of the respondents show that they are homogenous in their responses.

Research Question 2

What are the challenges male and female teachers face in implementing experiential learning for cognitive development in Enugu State?

Table 2: Mean response on challenges male and female teachers face in implementing experiential learning for cognitive development in Enugu State.

ITEMS		Male Teachers 90		Female Teachers 30		Overall 120		Dec
S/N	The following are the challenges of implementing experiential learning for cognitive development	$\bar{X}$	SD	$\bar{X}$	SD	$\bar{x}$	SD	
6	Time-Consuming	3.12	.80	3.11	.82	3.11	.82	A
7	Inadequate Teacher Preparation.	2.34	.84	2.37	.82	2.36	.83	A
8	Unequal Student Participation	2.52	.81	2.51	.82	2.51	.82	A
9	Curriculum Misalignment	2.55	.80	2.53	.82	2.55	.81	A
10	Risk of Misguided Learning	3.07	.84	3.04	.82	3.04	.83	A
Cluster Mean/SD		2.62	.82	2.61	.82	2.62	.82	A

The data analysis on Table 2 above shows the mean response on challenges of implementing experiential learning for cognitive development in secondary schools in Enugu State. Male teachers mean ranged from 2.25 to 3.12, while female teachers mean ranged from 2.23 to 3.11. The values of their cluster means are 2.62 and 2.61 with standard deviations of .82 and .82 respectively. However, their overall mean ranged from 2.24 to 3.11 with cluster mean of 2.62 and standard deviation of .82. The

finding of the study signifies that male and female teachers agree on the challenges of implementing experiential learning. The standard deviations of the respondents show that their responses were closely related.

Discussion

The result in table I revealed that male and female teachers believed that experiential learning enhances active engagement, critical thinking and problem solving, reflection, application of knowledge and creativity. This

is in line with the work of Chaurey and Trung (2022), who asserted that experiential learning has the capacity of improving students' hands-on activity in basic education programmes in Nigeria.

Results in table 2, clearly indicated that male and female teachers agree on the challenges affecting the implementation of experiential learning for cognitive development. Respondents agreed that experiential learning is time consuming, inadequate teacher preparation, unequal student participation, curriculum misalignment and risk of misguided learning. This is in line with the work of Mogbo, Okafor and Okafor (2022), who asserted that experiential learning has many challenges of implementations ranging from time consuming, teachers inefficiency, and lack of adequate preparation.

Conclusions

Experiential learning has proven to be a powerful instructional approach for achieving learning objectives in secondary schools, as it actively engages students in the learning process through direct experience, reflection, and application of knowledge. In the context of Enugu State, where traditional teaching methods still dominate many classrooms, experiential learning provides a promising alternative for improving students' understanding, retention, and practical

application of concepts. It fosters critical thinking, creativity, problem-solving, and collaboration—skills that align with modern educational goals and the demands of the 21st century.

However, the effectiveness of experiential learning in achieving these objectives depends largely on factors such as teachers' competence, availability of instructional resources, and administrative support. Many schools in Enugu State face challenges such as inadequate facilities, limited training for teachers, and examination-oriented curricula, which often hinder the proper implementation of experiential learning strategies.

Therefore, while experiential learning has the potential to significantly enhance students' academic achievement and cognitive development, there is a pressing need for systematic efforts to strengthen its practice in Enugu State. This includes continuous teacher training, adequate provision of learning materials, curriculum alignment with experiential principles, and supportive school environments. When these conditions are met, experiential learning can serve as a transformative tool for achieving holistic and meaningful learning outcomes among students in Enugu State.

In conclusion, experiential learning remains a powerful pedagogical tool for transforming education at the upper basic level in Nigeria. When teachers are adequately trained, motivated, and supported to adopt experiential strategies, students become more engaged, reflective, and capable of applying knowledge to real-life contexts. Thus, improving teachers' perception and practice of experiential learning is a key pathway to achieving higher cognitive development and educational excellence in Nigeria's basic education system.

Recommendations

The following were the recommendations for the study

1. Government and educational agencies should organize continuous workshops, seminars, and in-service training for teachers on the effective use of experiential learning strategies to enhance students' cognitive development.
2. The Nigerian Educational Research and Development Council (NERDC) should ensure that experiential learning principles are fully integrated into the upper basic education curriculum to encourage practical and reflective learning.

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