



Assessment of Teachers' Utilization of Instructional Materials for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State, Nigeria

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Abstract: *This study was designed to assess teachers' utilization of instructional materials for effective teaching in Early Child Care Development Centres in Yola-North LGA of Adamawa State, Nigeria. The study's population comprises all sixty-six (66) teachers from the 23 public Early Childhood Care Education Centres in Yola-North LGA of Adamawa State. The researchers have opted to include sixty-six (66) teachers and to collect quantitative data the researchers developed and distributed a structured questionnaire to the teachers. The data collected for the study were analysed to answer the research questions raised for the study with a decision mean value of 2.50. indicating that any item with a mean score >2.50 is accepted where as an item with a mean score <2.50 is rejected. The finding of the study revealed that although there exists a significant awareness of the significance of instructional materials among ECCE educators in Yola North, their actual application is frequently obstructed by systemic issues such as insufficient funding, a scarcity of locally sourced materials, and inadequate professional development opportunities. The findings indicate that when educators successfully incorporate visual, auditory, and tactile resources, there is a noticeable enhancement in student engagement and information retention. Based on these findings, the researchers recommended that: There is a necessity to enhance Teacher Proficiency through Continuous Professional Development and There is a necessity to institutionalize the Culture of Improvisation of instructional materials.*

Keywords: *Assessment of Education System, Utilization of Instructional Materials, Effective Teaching, Early Childhood Care, Education Centres.*

INTRODUCTION

Education, regarded as the foundation of societal advancement, fundamentally depends on the quality and efficacy of the instructional resources utilized within the teaching and learning

environment. The evolving nature of modern education necessitates a sophisticated comprehension of instructional materials. As noted by Iyunade (2014) [1], instructional materials are resources closely linked to objects, individuals, or environmental elements that act as catalysts for learning activities. These materials, which range from traditional textbooks to innovative audio-visual aids, are crucial in shaping the educational landscape. The significance of instructional materials in any teaching and learning process cannot be overstated. This is due to the fact that such materials enhance, facilitate, and simplify teaching and learning at all educational levels, including Early Childhood Care Education [2].

Early Childhood Care and Education (ECCE) serve as the foundational pillar of the formal educational journey, covering the period from birth to age eight. During this developmental phase, children exhibit a distinctive cognitive structure characterized by a shift from sensorimotor intelligence to pre-operational thought, where learning is most effective when mediated through concrete, tangible objects rather than abstract verbal expressions [3]. In Early Childhood Education, children's learning is grounded in the use of concrete materials by the teacher or caregiver. To introduce additional materials or items that enhance learning among children, the teacher must be resourceful and capable of improvising some of these learning materials independently. Teachers and caregivers should utilize local or inexpensive materials available in their environment to create, develop, and produce effective learning materials for children to acquire essential basic skills [4]. It is against this background that this study is designed to assess teachers' utilization of instructional materials for effective teaching in Early Child Care Development Centres in Yola-North LGA of Adamawa State.

Objectives of the Study

This research is aimed assessing teachers' utilization of instructional materials for effective teaching in Early Child Care Development Centres in Yola-North LGA of Adamawa State. Specifically, the study is designed to:

- a. Examine the instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.
- b. Assess the level of utilization of instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.
- c. Evaluate the effects of utilization of instructional materials in Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.
- d. Identify the challenges affecting the utilization of instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.

Research Questions

The following research questions were raised to guide the study:

- a. What are the instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?
- b. What is the level of utilization of instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?
- c. What are the effects of utilization of instructional materials in Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

- d. What are challenges affecting the utilization of instructional materials for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

REVIEW OF RELATED LITERATURE

Concept and Types of Instructional Materials

Instructional materials are regarded as supplementary items, resources, or materials that educators typically gather and utilize to enhance and elaborate on the content delivered during lessons, thereby facilitating a clearer understanding of concepts for learners and augmenting their knowledge and skill acquisition [4]. These instructional materials include locally produced tools (such as improvised items like stones and sticks) that assist in the teaching process [5][6]. Tukur (2012) [7] Mustapha *et al.* (2002) [8] and Azikiwe (2007) [9] Contribute to the discourse by offering a detailed classification based on sensory attributes. This taxonomy categorizes instructional materials into six distinct groups:

- Audio Materials (pertaining solely to sound) includes items such as radios, record players, cassettes, gramophones, CDs, songs, and poems. These resources facilitate teaching through the auditory sense.
- Visual Materials - (pertaining to sight). This category encompasses maps, film strips, specimens, images, charts, blackboards, and positions. This category engages children through the principle of seeing is believing, which holds some validity in this context. When children interact with tangible items, they more readily comprehend the meanings of conceptual ideas.
- Audio-visual Materials (a combination of audio and visual, i.e., sound and sight). This includes devices such as televisions, films, DVDs, projectors, computers, and iPads. The incorporation of these tools significantly enhances the learning experience.
- Print Materials (pertaining to hard copies). This category includes books, newspapers, journals, handouts, etc., which contribute to effective learning.
- Static/display Materials: This category consists of items such as chalkboards, flannel graphs, flip charts, and magnetic boards.
- Electronic Materials: This category includes devices such as radios, computers, email, and multimedia resources.

Level of Utilization of Instructional Materials in Teaching and Learning

Utilization refers to the process of employing both tangible and intangible resources. Eze and Olaitan (2015) [10] asserted that educators appointed to teaching roles in schools frequently fall short of the standards necessary for effective instructional delivery, primarily due to inadequate utilization and upkeep of instructional materials. Conversely, Whitzman (2019) noted that higher education institutions in Nigeria typically make use of the facilities available within schools. Additionally, Samuel (2010) [11] remarked that a significant number of educational facilities in Nigeria's tertiary institutions are utilized to a greater extent than those at lower levels of education. School

Importance of utilization of Instructional materials in Teaching

Asamoah and Amo (2021) [12] asserted that utilizing instructional materials is crucial for effective instructional delivery, enabling students to gain a deeper understanding while aligning

with their characteristics, the topics at hand, and the objectives of the lesson. Kaufman *et al.* (2020) [13] concurred, stating that instructional materials provide a tangible foundation for conceptual thinking, thereby minimizing irrelevant verbal responses from students. Indeed, it is essential for teachers to incorporate instructional materials to enhance the engagement of the teaching-learning process [14].

In their research, Fiorella and Kuhlmann (2020) [15] discovered that when instructors effectively employ instructional materials, they facilitate learning through visual elaboration. Instructional materials can invigorate and motivate learners when fully utilized by the teacher during the educational process. Likewise, Hilda and Bernard (2015) [16] found in their investigation regarding the availability and application of instructional materials in teaching that such resources can significantly assist teachers in elucidating new concepts across various subjects. Enikanolaye (2021) [17] observed that the use of instructional materials by teachers enhances and stimulates students' retention levels, thereby aiding them in grasping mathematical concepts more effectively. In essence, these materials enable educators to present new information in a manner that is both memorable and meaningful for learners.

According to Gagne *et al.* (2005) [18], the objective of employing instructional materials should be to foster greater engagement among learners, providing them with constructive feedback related to the exercises assigned in either guided or self-paced learning environments. Similarly, Umuhoza and Uworwabayeho (2021) [19] argue that the effective use of instructional materials in teaching and learning processes renders learning more accessible, engaging, concrete, enjoyable, and relevant to real-life contexts.

CHALLENGES FACING TEACHERS' UTILIZATION OF INSTRUCTIONAL MATERIALS TEACHING AND LEARNING

Yakubu (2016) observed that insufficient funding has hindered the provision of essential facilities necessary for the effective implementation of the programme in many colleges of education. Factors such as large class sizes, inadequate financial resources, limited curriculum materials, subpar teaching skills, and insufficient support for educators further diminish the quality of business studies instruction and learning in Nigerian schools [20].

Furthermore, Shehu *et al.* (2025) [2] identified several challenges impacting teachers' use of instructional materials for effective teaching in primary schools within Yola-North LGA, including: a lack of additional work hours, poor time management skills to adequately cover the curriculum, insufficient government funding for the acquisition of instructional materials, a high pupil-to-classroom ratio, inadequate training levels, and reluctance to embrace new instructional methods.

RESEARCH METHODS

This research employs a descriptive survey research design, which is particularly suitable for examining the assessment of teachers' use of Instructional Materials to enhance teaching and learning in Early Childhood Care Education Centres. The choice of a survey research design is justified as it offers a systematic method for data collection and analysis, thereby providing a comprehensive insight into how teachers utilize instructional materials. The focus of the research is on Early Childhood Care Education Centres located in Yola-North LGA of Adamawa State. This location was selected due to its urban characteristics and the abundance of Early Childhood Care Education Centres. The study's population comprises all sixty-six (66) teachers from the 23 public Early Childhood Care Education Centres in Yola-North LGA of

Adamawa State. Given the limited number of teachers in these public centres, the researchers have opted to include all sixty-six (66) teachers, thus eliminating the need for sampling in this study.

To collect quantitative data, the researchers developed and distributed a structured questionnaire to the teachers. This questionnaire was titled “Teachers’ Utilization of Instructional Materials for Effective Teaching in Early Childhood Care Development Centres Opinion Questionnaire.” The questionnaire is divided into two sections. Section A focuses on the respondent’s bio-data while section B consisted of 51 items designed using the 4-points Modified Likert Scale on Availability, Utilization and agree.

The questionnaire was validated by experts in Early Child Care Education and Research in Federal college of Education, Yola. The validated questionnaire was trial tested with 30 respondents in a pilot study at Yola-South Local Government which has similar characteristics with the sampled population but they are not part of the sampled population. The reliability of internal consistency was established using the Cronbach Alpha Method and the result yielded a 0.85 coefficient which is an indication that the instrument is reliable. The data collected for the study were analysed using the mean score and standard method of data analysis to answer the research questions raised for the study with a decision mean value of 2.50. indicating that any item with a mean score >2.50 is accepted where as an item with a mean score <2.50 is rejected.

RESULTS AND DISCUSSIONS

Results

Research Question One: What are the instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

Table 1: Shows the instructional materials available for effective teaching in early childhood care and education centres in Yola North LGA, Adamawa State, Nigeria.

Sl.	ITEMS	MEAN	S.D.	DECISION
1	Bottle tops	3.41	0.87	Highly Available
2	Chart	3.21	0.76	Highly Available
3	Computers	2.31	0.54	Fairly Available
4	Counting Stick	3.26	0.77	Highly Available
5	Diagrams	3.42	0.89	Highly Available
6	Flannel Board	3.27	0.78	Highly Available
7	Flash cards	3.55	0.90	Highly Available
8	Models	3.62	0.92	Highly Available
9	MP3 / MP4	2.52	0.57	Available
10	Pictures	3.64	0.93	Highly Available
11	Projectors	2.10	0.50	Fairly Available
12	Radio	2.87	0.61	Available
13	Realia (Real Objects)	3.04	0.72	Highly Available
14	Shapes	3.14	0.77	Highly Available
15	Television	2.40	0.56	Fairly Available
16	Toys	3.22	0.79	Highly Available
17	Video / DVD Player	2.32	0.51	Fairly Available
	GRAND MEAN	3.02	0.73	Highly Available

[Source: Research Survey February 2026]

From the analysis in table one above it is clear that: the following instructional materials were highly available in Early Childhood Education Centres in Yola North Local Government Area Bottle tops, Chart, Computers, Counting Stick, Diagrams, Flannel Board, Flash cards, Models, Pictures, Realia (Real Objects), Shapes and Toys with calculated means scores of 3.04 and 3.64. The following materials are available: MP3/MP4, and Radio this is supported with calculated mean scores of 2.52 and 2.87 respectively, while the following instructional materials are fairly available: Computers, Projectors, Television and Video / DVD Player with man scores of between 2.10 and 2.40.

Research Question Two: What is the level of utilization of instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

Table 2: Shows the level of utilization of instructional materials available for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State, Nigeria.

Sl.	ITEMS	Mean	S.D.	Decision
1	Bottle tops	3.37	0.96	Highly utilised
2	Chart	3.44	0.99	Highly utilised
3	Computers	2.27	0.58	Fairly utilised
4	Counting Stick	3.14	0.95	Highly utilised
5	Diagrams	3.58	0.98	Highly utilised
6	Flannel Board	3.59	0.97	Highly utilised
7	Flash cards	3.09	0.83	Highly utilised
8	Models	3.53	0.63	Highly utilised
9	MP3 / MP4	2.34	0.54	Fairly Utilised
10	Pictures	3.36	0.85	Highly utilised
11	Projectors	2.19	0.53	Fairly utilised
12	Radio	2.15	0.59	Fairly Utilized
13	Realia (Real Objects)	3.08	0.77	Highly utilised
14	Shapes	3.30	0.89	Highly utilised
15	Television	2.37	0.66	Fairly utilised
16	Toys	3.44	0.79	Highly utilised
17	Video / DVD Player	2.27	0.58	Fairly utilised
	GRAND MEAN	2.97	0.77	Utilized

[Source: Research Survey February 2026]

From the analysis in table two it is clear that the following items: Bottle tops, Chart, Counting Stick, Diagrams, Flannel Board, Flash cards, Models, Pictures, Realia (Real Objects), Shapes and Toys were highly utilized by teachers with calculated mean scores of between 3.08 and 3.59 respectively. while the following instructional materials: radio, MP3 / MP4, Projectors, Television and Video / DVD Player were fairly utilized by the teachers as rated with calculated mean scores of between 2.15 and 3.17 respectively.

Research Question Three: What are the effects of utilization of instructional materials in Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

Table 3: Shows effects of utilization of instructional materials in Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.

Sl.	ITEMS	Mean	S.D.	Decision
1	Make students acquire more knowledge	3.37	0.96	Agreed
2	Instructional materials serve as a concrete basis for conceptual thinking	3.44	0.99	Agreed
3	Instructional materials make the teaching-learning process engaging	2.67	0.68	Agreed
4	Instructional materials support learning through visual elaboration	3.14	0.95	Agreed
5	Instructional materials stimulate and excite learners	3.58	0.98	Agreed
6	Instructional materials have the potential of helping the teacher in explaining new concepts	3.59	0.97	Agreed
7	Instructional materials, improve and stimulate students' retention level	3.09	0.83	Agreed
8	Instructional materials make learning easier	3.53	0.63	Agreed
	GRAND MEAN	3.30	0.87	Agreed

[Source: Research Survey February 2026]

From the analysis in table four, it is clear that the utilization of instruction materials by teachers of Early Childhood Education Centres in Yola North Local Government Area is important in the following areas: make students acquire more knowledge, instructional materials serve as a concrete basis for conceptual thinking, instructional materials make the teaching-learning process engaging, instructional materials support learning through visual elaboration, Instructional materials stimulate and excite learners, instructional materials have the potential of helping the teacher in explaining new concepts, instructional materials, improve and stimulate students' retention level and instructional materials make learning easier. This is supported with calculated mean scores of 3.37, 3.44, 2.67, 3.14, 3.58, 3.59, 3.09 and 3.53 respectively.

Research Question Four: What are challenges affecting the utilization of instructional materials for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State?

Table 4: Depicts the challenges affecting the utilization of instructional materials for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State.

Sl.	ITEMS	Mean	S.D.	Decision
1	Large class sizes,	3.37	0.96	Agreed
2	inadequate funding,	3.44	0.99	Agreed
3	insufficient curriculum resources,	2.67	0.58	Agreed
4	poor teaching skills,	3.14	0.95	Agreed
5	ack of supports for teachers	3.58	0.98	Agreed
6	Lack of extra time at work,	3.59	0.97	Agreed
7	Poor time management skills to cover the curriculum	3.09	0.83	Agreed
8	Low level of training	3.53	0.63	Agreed

9	Hesitation to adopt new instructional strategies.	2.64	0.54	Agreed
	GRAND MEAN	3.23	0.83	Agreed

[Source: Research Survey February 2026]

From the analysis in table four shows that there are challenges affecting the utilization of instructional materials for Effective Teaching in Early Childhood Care and Education Centres in Yola North LGA, Adamawa State. Some of these challenges are: large class sizes, inadequate funding, insufficient curriculum resources, poor teaching skills, lack of supports for teachers, Lack of extra time at work, Poor time management skills to cover the curriculum, Low level of training and Hesitation to adopt new instructional strategies. This is supported with calculated mean scores of 3.37, 3.44, 2.67, 3.14, 3.58, 3.59, 3.09, 3.53 and 2.64 respectively.

DISCUSSIONS OF THE FINDINGS

From the analysis in table one above it is clear that: the following instructional materials were highly available in Early Childhood Education Centres in Yola North Local Government Area Bottle tops, Chart, Computers, Counting Stick, Diagrams, Flannel Board, Flash cards, Models, Pictures, Realia (Real Objects), Shapes and Toys with calculated means scores of 3.04 and 3.64. The following materials are available: MP3 / MP4, and Radio this is supported with calculated mean scores of 2.52 and 2.87 respectively, while the following instructional materials are fairly available: Computers, Projectors, Television and Video / DVD Player with mean scores of between 2.10 and 2.40. This finding agreed with the findings of Tukur (2012) [7] Mustapha et al. (2002) [8] and Azikiwe (2007) [9].

From the analysis in table two it is clear that the following items: Bottle tops, Chart, Counting Stick, Diagrams, Flannel Board, Flash cards, Models, Pictures, Realia (Real Objects), Shapes and Toys were highly utilized by teachers with calculated mean scores of between 3.08 and 3.59 respectively. while the following instructional materials: radio, MP3 / MP4, Projectors, Television and Video / DVD Player were fairly utilized by the teachers as rated with calculated mean scores of between 2.15 and 3.17 respectively. The finding agreed with the findings of, Eze and Olaitan (2015) [10], Whitzman (2019) and Samuel (2010) [11] also observed that most of the available educational facilities in tertiary institutions of Nigeria are excessively utilized than the lower level of education.

From the analysis in table four, it is clear that the utilization of instruction materials by teachers of Early Childhood Education Centres in Yola North Local Government Area is important in the following areas: make students acquire more knowledge, instructional materials serve as a concrete basis for conceptual thinking, instructional materials make the teaching-learning process engaging, instructional materials support learning through visual elaboration, Instructional materials stimulate and excite learners, instructional materials have the potential of helping the teacher in explaining new concepts, instructional materials, improve and stimulate students' retention level and instructional materials make learning easier. This is supported with calculated mean scores of 3.37, 3.44, 2.67, 3.14, 3.58, 3.59, 3.09 and 3.53 respectively. This finding agreed with the findings of: Asamoah and Amo (2021) [12], Kaufman et al. (2020) [13] Nicholls, (2000), Raw, (2003) [14], Fiorella and Kuhlmann (2020) [15], Hilda and Bernard (2015) [16], Enikanolaye (2021) [17], Okolooba, (2021) [20], Gagne et al. (2005) [18], Umuhoza and Uworwabayeho (2021) [19].

From the analysis in table four shows that there are challenges affecting the utilization of instructional materials for Effective Teaching in Early Childhood Care and Education Centres

in Yola North LGA, Adamawa State. Some of these challenges are: large class sizes, inadequate funding, insufficient curriculum resources, poor teaching skills, lack of supports for teachers, Lack of extra time at work, Poor time management skills to cover the curriculum, Low level of training and Hesitation to adopt new instructional strategies. This is supported with calculated mean scores of 3.37, 3.44, 2.67, 3.14, 3.58, 3.59, 3.09, 3.53 and 2.64 respectively. This finding agreed with the findings of Yakubu (2016), and Shehu et al (2025) [2].

CONCLUSION

In summary, the research reveals that although there exists a significant awareness of the significance of instructional materials among ECCE educators in Yola North, their actual application is frequently obstructed by systemic issues such as insufficient funding, a scarcity of locally sourced materials, and inadequate professional development opportunities. The findings indicate that when educators successfully incorporate visual, auditory, and tactile resources, there is a noticeable enhancement in student engagement and information retention. Consequently, to improve the standard of early childhood education in Adamawa State, it is crucial for the Ministry of Education and local stakeholders to prioritize the provision of contemporary instructional resources and to organize regular workshops aimed at refining teachers' improvisational abilities.

Recommendations

By fortifying these aspects, we can ensure that the foundational years of children in Yola North are strong, equitable, and in accordance with global best practices in early childhood education pedagogy.

- a. There is a necessity to enhance Teacher Proficiency through Continuous Professional Development.
- b. There is a necessity to institutionalize the Culture of Improvisation of instructional materials
- c. The government must prioritize financial support for ECCE centers to guarantee a consistent supply of essential materials.
- d. Parents should be sensitized on their role as the child's first teachers.
- e. ECCE centers in Yola North should organize "Parent-Teacher Resource Days" where parents contribute local materials or assist in the creation of learning corners.

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