

**THE IMPACT OF MULTI-MEDIA INFORMATION RESOURCES IN SCHOOL
LIBRARIES TO ENHANCE EARLY CHILDHOOD EDUCATION**

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Abstract

This paper conceptually explores the role of multi-media information resources in school libraries and their impact on enhancing Early Childhood Education (ECE). School libraries, traditionally viewed as repositories of books and printed materials, are increasingly becoming multimedia centers, integrating digital technologies, interactive tools, and diverse media formats to foster engaging and interactive learning environments. The paper draws on the constructivist theory of learning, emphasizing active, hands-on, and collaborative learning experiences, which are crucial in the development of young learners. It highlights how multimedia resources, such as eBooks, audio-visual materials, and educational software, support diverse learning styles and contribute to cognitive, social, and emotional development in early childhood education. Despite their potential benefits, the integration of these resources faces challenges such as inadequate funding, lack of ICT facilities, and limited awareness among educators. The paper concludes with recommendations for improving the availability and utilization of multimedia resources in school libraries, advocating for increased investment and curriculum integration to ensure that early childhood education benefits from these innovative learning tools.

Keywords: Early Childhood, Education, School, Library, Multi-media, Information Resources

Introduction

School libraries are not only places to access books or curriculum-based information but homes for community-building tools as well. School libraries can provide more engaging and interactive learning experiences for Early Childhood Education by embracing digital technologies, thereby becoming more relevant and valuable in supporting the educational needs of school pupils in the 21st century. A school library according to Haycock (2010) refer to as a media centre with designated space within the educational environment that not only provides books and other printed materials, but also supports various forms of media and digital resources. This includes the integration of technologies such as computers, audiovisual materials, and online databases, aimed at enhancing learning and literacy. In the same vein Tolorunleke, Aji, Adalikwu, Ashofor, Milcah & Orji (2019) defined school library as a multimedia centre, media resource centre, school media centre, instructional resource centre etc., with collection of information resources in different format.

In early childhood education media information resources are vital and needed in abundance. These information resources are basic tools which are needed for effective teaching and learning of school pupils. Aside from printed information resources, media information resources are also needed to enrich classroom learning experience of school pupils and expose them to the larger world around them. According to a report by the African Development Bank, the high cost of technology remains one of the major barriers to scaling up education technology in many African countries (African Development Bank, 2021). This includes the costs of devices, software, and the required maintenance. The school library in every school should have a section devoted to multimedia information resources like film slides, transparencies, photographs, maps, posters,

charts, as well as hardware in the form of radio and television set, tape recorder/player, DVD/CD player, slide and film-projector, overhead projector, computer and Xerox machine so that the library can develop into real learning resource centre where both pupils and teachers can explore new paths of learning. This is in agreement with Mayer (2024) who submitted that integrating multimedia tools such as computers, audiovisual materials, and digital platforms significantly improves learning outcomes by making instruction more interactive and learner-centered

The sole purpose or objective of this paper is to explore how multi-media information resources in school libraries positively impact and enhance Early Childhood Education (ECE) using constructivism theory as a lens to guide the study. This is crucial because according to Shunk (2023), learners actively build knowledge based on prior experiences rather than passively receiving information. The paper therefore focuses on the Impact of Multi-media Information resources in School Libraries to Enhance Early Childhood Education.

Theoretical Framework

Constructivism Theory

Constructivism is a theory of learning and knowledge construction that suggests individuals actively construct their own understanding and knowledge of the world, based on their experiences and interactions with it. This perspective is further supported by Schunk (2023), who emphasizes that learning is an active, constructive, and goal-oriented process.

Constructivist learning is strengthened by multimedia environments, which engage learners in active processing and meaning-making (Fiorella & Mayer, 2022). Additionally, digital

technologies provide scaffolding opportunities that support learners as they develop new skills and competencies (Koehler, Mishra, & Cain, 2022).

It is particularly influential in education, cognitive psychology, and social theory. The theory emphasizes that knowledge is not passively received but is actively built by learners as they process and make sense of new information.

Key Concepts of Constructivism

1. **Active Learning:** Learners are seen as active participants in their learning process rather than passive recipients of information. They don't just absorb facts, but engage with the material, question it, and integrate it into their existing mental frameworks.
2. **Knowledge Construction:** According to constructivism, knowledge is not something that is given to learners, but something that is constructed by them. Learners build on their prior knowledge and experiences, making connections and reinterpreting information to make sense of new experiences.
3. **Social Interaction:** Learning is often viewed as a social process in constructivism. Interaction with others whether peers, teachers, or more knowledgeable individuals—plays a critical role in the development of understanding. Constructivism stresses the importance of social context and collaborative learning, emphasizing how cultural tools, language, and social interactions contribute to cognitive development.
4. **Contextual Learning:** Knowledge is best understood when it is tied to real-world experiences and contexts. Learning is not abstract but is situated in specific contexts that provide meaning and relevance to learners.

5. **Problem-Solving:** Constructivism often focuses on problem-solving and inquiry-based learning, where learners are given opportunities to explore questions and solve problems on their own or with guidance. This helps develop critical thinking and deeper understanding.
6. **Scaffolding:** Scaffolding refers to the support provided by more knowledgeable others (teachers, peers, or even tools) that enables learners to perform tasks they cannot do independently. This support is gradually removed as learners gain competence.

Conceptual Clarifications

Early Childhood Education

National Association for the Education of Young Children, defined “Early Childhood Education as the education of children from birth to age eight (8 years), and is considered to be the most vulnerable stage of a person’s life. It is the basis on which other education system is constructed. In the same vein Bruce (2015) defined early childhood education as the process of promoting a child’s social, emotional, physical, and cognitive development from birth to eight years old, through structured and unstructured activities, in an environment that is supportive and nurturing. The National Policy of Education (NPE, 2004) outlined the following objectives as vital to childhood education:

- I. Effect a smooth transition from the home to the school
- II. Prepare the child for the primary level education
- III. Provide adequate care and supervision for children while their parents are at work
- IV. Imbibe in the child the spirit of inquiry and creativity through exploration of the nature, the environment, art, music and playing with toys etc.

- V. Inculcate social, moral norms and values
- VI. Build a sense of co-operation and team spirit

School Library: A school library is a type of library that supports school programs as well as the teaching and learning process. School libraries serve students/pupils by providing materials to meet their various needs and encouraging reading and the use of libraries (Oyetola & Adio, 2020). In the same vein Tolorunleke et al (2019) defined school library as a multimedia centre, media resource centre, school media centre, instructional resource centre etc., with collection of information resources in different format. The educational aims of school libraries according to idiegbeyan-ose and Okoedion in Aji & Adalikwu (2023) include:

1. To stimulate and enhance the reading habit;
2. To develop in children to read for information;
3. To help pupils to increase and improve their knowledge of reading, speaking and writing;
4. To train children to care for books and make good and intelligent use of the library;
5. To enhance children reading and communication skills
6. To provide children with information, both current and retrospective
7. To provide recreation

School Libraries as Multimedia Centers

A school library as a multimedia center refers to a dynamic learning environment where a variety of media, including print materials, digital resources, audiovisual content, and interactive technologies, are integrated to support and enhance children learning experiences. These libraries are not only spaces for traditional reading but also serve as hubs for digital literacy, creative expression, and collaborative learning. By providing access to diverse media formats such as e-

books, online databases, videos, audio recordings, and multimedia software school libraries offer school pupils the tools to engage in both independent and group learning activities.

Key Characteristics of School Libraries as Multimedia Centers:

1. **Diverse Media Resources:** The school library is a repository of various media types, including traditional books, e-books, audiobooks, video content, and other digital formats. This range of materials allows students to access resources in different ways, enhancing their learning experience (Hartzell, 2002)
2. **Technological Integration:** A multimedia center in a school library typically includes computers, tablets, digital audio-visual equipment, and interactive whiteboards. These technologies support activities like video creation, digital storytelling, online research, and collaborative projects (Akin, 2020)
3. **Support for Digital Literacy:** As a multimedia center, the school library plays a crucial role in teaching school children how to effectively use digital tools, navigate the internet, critically assess digital resources, and create multimedia content (ACRL, 2016)
4. **Collaborative Learning Spaces:** The library often provides flexible spaces for group work, where students can use multimedia resources to collaborate on projects, practice presentations, and engage in creative and technological task (Kuhltha et al, 2015)
5. **Facilitating Research and Information Management:** The multimedia center also includes access to specialized digital resources like online databases, journals, and archives, which help school children, improve their research skills by providing easy access to vast collections of information (Williams, 2016).

Multi-Media Information Resources in School Libraries

School libraries offer a range of media information resources that support early childhood teaching and learning experience. These resources are very vital to early childhood education because it helps establish reading habit at a young age. The resources needed in such age bracket are carved letter A-Z, shapes, various objects of colors, drawings of animals and other things around the environments, picture books, and media information resources (Okafor, Yakubu & Aji, 2016). In the same vein Evans & Saponaro (2012), these resources can be divided into various categories, each serving a unique educational purpose. Here are some key types of media resources and their uses:

1. Books and Printed Materials: Books are fundamental resources in school libraries. They include textbooks, reference books, fiction, and non-fiction materials. These are used for direct learning, research, and supporting curriculum-based activities.

2. Digital Resources (eBooks and Online Databases): Many school libraries offer access to eBooks and digital databases. These resources provide easy access to academic journals, articles, and digital versions of books, helping students with research and independent study (Green, H, 2019).

3. Audio-Visual Materials: Audio-visual materials like DVDs, CDs, and streaming platforms (e.g., YouTube, educational video subscriptions) help reinforce learning through multimedia. They are particularly useful for visual and auditory learners. Idris in Tolorunke et al(2019) stressed that audio-visual information resources enrich learning and teaching as well as allowing school pupils to learn on their own.

4. Websites and Online Resources: Websites are a versatile resource in school libraries. They can range from academic institutions' websites to reliable educational portals (like Khan Academy or TED-Ed). According to McCullen, J., & Lee, J. (2018), these resources offer school children and teachers immediate access to a variety of research materials and multimedia.

5. Software Tools and Applications: School libraries often provide access to educational software for word processing, data analysis, graphics design, or even coding. These tools assist school children in completing assignments, exploring creativity, and enhancing digital literacy (Burgess, D., 2015)

6. Interactive Resources (CD-ROMs, Interactive Whiteboards): Interactive materials, such as CD-ROMs containing educational games or interactive whiteboards for engaging lesson delivery, support both individual and group learning, enhancing engagement and knowledge retention (Mraz & Rasinski, 2007).

7. Maps, Charts, and Visual Aids: Maps, globes, charts, and visual aids in the library support geography and social studies learning. They help students understand global connections, historical events, and data in a visual format, making abstract concepts more tangible (Schwartz, 2013).

8. Microform Materials (Microfiche and Microfilm): Although less common today, microform materials are still used in some school libraries for historical research, offering access to older newspapers, journals, and other records.

Benefit of Multi-media Information Resources in School Libraries to Enhance Early Childhood Education

The impact of multi-media information resources in school libraries on early childhood education cannot be over emphasized. The under listed are some of the positive impacts of multi-media information resources on early childhood education:

1. **Individualized Instruction:** Multi-media information resources provide various occasions for school pupils to move about, talk, laugh and comment upon. Under such learning environment school pupils work because they want to work and not because the teacher wants them to work. This reflects the constructivist idea that learners construct knowledge individually based on prior experiences, while scaffolding (through guided digital tools) supports their gradual mastery of concepts.
2. **Encouraging Pupils active participation:** multimedia information resources provide school children the opportunities to see, handle and manipulate things. These information resources promote active participation, allowing learners to interact with content and construct knowledge through experience (Fiorella & Mayer, 2022). In other words, school pupils certainly like it more and learn better if they are engaged in important and appealing activities Constructivism posits that learners are not passive recipients but active participants. Through interactive media, pupils question, explore, and internalize knowledge, leading to deeper understanding.
3. **Access to Diverse Resources:** School libraries offer a variety of materials beyond books, including multimedia resources, which cater to different learning styles. A diverse selection of materials helps engage children with varying interests and abilities. Access to diverse multimedia resources enhances inclusive education and caters to different learning styles (UNESCO, 2023)

- 4. Extending Teaching and learning Experience:** Multi-media information resources in school libraries expose the teacher and learner to a wide range of information resources. The culture and climatic conditions of other countries can be brought into the classroom with the aid of slides, films, filmstrips and projectors. This provides the teacher the opportunity to surmount the challenge of geographical barrier so as to enrich his/her lesson presentation. Moreover, multimedia resources extend learning beyond the classroom by providing real-world contexts, a key principle of constructivism (Schunk, 2023). Constructivism stresses that Knowledge is best understood when it is tied to real-world experiences and contexts. Learning is not abstract but is situated in specific contexts that provide meaning and relevance to learners.
- 5. Facilitate Retention and Recall in Learning:** Multi-media information resources can play a vital role in facilitating pupils retention and recall in learning thereby making learning permanent. According to Mayer (2024), multimedia tools improve retention and recall by engaging multiple senses, which enhances cognitive processing. Multi-media information resources can therefore contribute to the clarity of information presented by allowing pupils to visualize what is learned
- 6. Supporting Social and Emotional Development:** In addition to cognitive development, multi-media information resources in school libraries often provide a space for social interaction. They also foster **social interaction and collaboration**, which are essential for cognitive development (Tondeur et al., 2021). Children can engage with peers during story time sessions or group activities. Learning is often viewed as a social process in

constructivism. Interaction with others, whether peers, teachers, or more knowledgeable individuals plays a critical role in the development of understanding.

Constraints to the Utilization of Multi-media Information Resources in School Libraries to Enhance Early Childhood Education

The following are some of the factors that militate against school library in adopting and utilizing multi-media information resources for effective childhood education and development. These include:

1. **Inadequate Funding:** poor funding of educational institutions including funding of school libraries, laboratories, workshop and computer units. A visit to most of the libraries shows that most library collections are outdated and do not meet the needs of the contemporary reading society (Aji & Adalikwu, 2023). The poor economy and low standard of living make the government and other bodies give less attention to library development
2. **Dearth of Information and Communication Technology Facilities** in most of our Nursery and Primary schools. Most children pass through nursery and primary schools without the experience of actually using the computer and other ICT facilities. According to Kuri and Maranna (2016) schools are sometimes reticent to recognize the benefits that Information and Communication Technology (ICT) offers to children who are in contact with them every day. Also, a child's technological ability often outweighs that of the teachers and the Librarians. This creates a clear barrier to collection of multi-media information resources for education effectively.
3. **Dearth of available libraries** in most of our nursery and primary schools. Rarely can we find a Nigerian nursery or primary schools with libraries. Most schools are established

without a library and no plan for one in the future. Most children pass through nursery and primary schools without the experience of actually using a library.

4. The teacher librarian in schools have failed to create sufficient awareness of the importance of using multi-media information resources in teaching and learning of school pupils. They have also not been sufficiently vocal in propagating the need to have school libraries in pre-primary, primary and post-primary schools.

Conclusion

The presence of multi-media information resources in school libraries make the teaching and learning of school children effective, stimulate pupils' interest in learning, making the class interactive, motivate the learners, facilitate retention and recall in learning and extend pupils learning experience.

Multimedia information resources significantly enhance early childhood education by promoting active, engaging, and meaningful learning experiences. These benefits align with constructivist principles, where learners actively construct knowledge through interaction with multimedia tools.

However, challenges such as inadequate funding, poor infrastructure, and lack of trained personnel must be addressed. Equipping school librarians and teachers with digital competencies is essential for effective integration of multimedia resources (Redecker & Punie, 2020). When properly implemented, multimedia resources can transform school libraries into dynamic learning centres that support holistic child development.

Recommendation

The following recommendations were made to adopt the use of multi-media information resources in school libraries for early childhood education:

1. Parents, Teachers, Pupils and school librarians alike should get involved in their various roles in the acquisition and utilization of multi-media information resources when necessary;
2. Curriculum planners should encourage the use of multi-media information resources by inculcating them in the educational syllabus of all levels of education;
3. The government should pave way for efficient funding for procurement of multi-media information resources to schools. They should also fund school library project as well as school library programs sufficiently to allow for adequate professional and support staff, as well as for the procurement of ICT facilities.
4. **Capacity Building and Continuous Training for School Librarians:** School librarians should undergo regular training and professional development to remain relevant in the digital age. This includes skills in digital literacy, information management, use of educational technologies, and multimedia resource integration. Workshops, seminars, and certification programs should be organized by government and professional bodies to equip librarians with competencies in managing e-libraries, online databases, and interactive learning tools. A digitally competent librarian is essential for supporting constructivist, learner-centered education
5. **Policy Formulation and Implementation:** Educational policymakers should develop and enforce policies that support the integration of multimedia resources in school libraries.

This includes setting standards for school library development, staffing, and resource provision.

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