ENHANCING STUDENT ENGAGEMENT THROUGH MEDIA TOOLS: A CASE STUDY OF DIGITAL INTERACTIVITY IN ZAMBIAN SECONDARY SCHOOLS

Dr. Sumathi.K.Sripathi¹, Betty Kumwenda²

^{1,2} DMI-St.Eugene University, Zambia

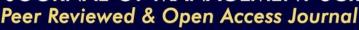
Abstract

The integration of digital media tools in education has rapidly evolved, offering new pathways to foster student interactivity and engagement. This study investigates how selected digital platforms—including WhatsApp, Google Classroom, and Zoom—have influenced student participation and active learning in selected secondary schools in Zambia. Using a qualitative research design, the study gathered insights from students and teachers to understand how media tools shape learner behavior, motivation, and collaboration. The findings revealed that digital tools have a positive impact on student engagement when infrastructure, digital literacy, and instructional design are adequately addressed. The study recommends that institutional policies support blended learning, digital inclusion, and continuous teacher training to leverage media tools effectively for active learning.

Keywords: Media tools, Student interactivity, Active learning, Digital education, Blended learning, Google Classroom, WhatsApp in education, Zambia, Secondary schools, Educational technology

Introduction

In recent years, the role of digital media in education has undergone a significant transformation, especially in response to the global shift toward technology-driven learning. The COVID-19 pandemic served as a catalyst for this shift, forcing many educational institutions to quickly adopt online platforms to ensure learning continuity. While digital instruction was initially a crisis response, it has increasingly become a strategic tool in modern pedagogy. One of the key benefits associated with digital media tools is their ability to increase student interactivity and promote active learning. This development has been particularly relevant in secondary education, where student engagement is a determinant of learning outcomes, retention rates, and academic motivation. In Zambia, as in many developing nations,



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integrating media tools into classroom practice has presented both opportunities and challenges. On one hand, platforms like WhatsApp, Google Classroom, Zoom, and YouTube have empowered educators to reach students beyond traditional classroom walls. These platforms support multimedia content, instant communication, peer collaboration, and flexible assessment strategies. On the other hand, disparities in access to digital devices, inconsistent internet connectivity, and limited digital literacy among both teachers and learners have posed significant implementation barriers. Consequently, the effectiveness of media tools in promoting student interactivity remains a contested issue, particularly in under-resourced educational contexts.

Active learning, defined as instructional methods that engage students in the learning process beyond passive listening, is central to improving the quality of education. This pedagogical approach emphasizes discussion, reflection, collaboration, and critical thinking—all of which can be enhanced through well-integrated media tools. In contrast to traditional lecture-based instruction, active learning leverages technology to foster student autonomy, encourage two-way communication, and facilitate personalized feedback. Digital tools not only enable synchronous and asynchronous learning but also provide opportunities for learners to construct knowledge through exploration, problem-solving, and interaction with diverse content formats. This study investigates the extent to which media tools influence student interactivity in selected Zambian secondary schools. It focuses on understanding how digital platforms are used, the nature of student participation, and the perceived benefits and challenges from the perspectives of both students and teachers. The research aims to address the following questions:

- 1. How are media tools being utilized to promote student engagement in the classroom?
- 2. What are the perceived outcomes of using media tools on student behavior and academic involvement?
- 3. What challenges hinder the effective use of media tools in enhancing active learning? Through this investigation, the study aims to contribute to a growing body of knowledge on technology-enhanced learning in the African context. By examining real classroom experiences, the study offers practical insights that can inform educational policy, teacher training programs, and institutional strategies for blended learning. Ultimately, it advocates for a nuanced and context-sensitive approach to media tool integration—one that bridges the digital divide and promotes inclusive, interactive education for all learners.



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Research Methodology

This study employed a qualitative research design to explore how media tools enhance student

interactivity and promote active learning in selected secondary schools in Zambia. A case study

approach was adopted to gain an in-depth understanding of the lived experiences of both

students and teachers in classrooms that utilize digital platforms. The qualitative design was

chosen due to its strength in capturing perceptions, behavioral patterns, and contextual

influences that quantitative methods may overlook.

Research Site and Participants

The study was conducted in two public secondary schools located in an urban district in

Zambia. These schools were selected based on their integration of media tools such as Google

Classroom, WhatsApp, Zoom, and YouTube in the delivery of lessons. A purposive sampling

technique was used to select participants who were actively engaged with these tools.

A total of 20 participants took part in the study, comprising 12 students and 8 teachers. The

students were from Grade 10 to Grade 12, representing a diverse mix of academic abilities and

technological exposure. The teachers had varying levels of experience in digital pedagogy,

ranging from novices to early adopters.

Data Collection Methods

Data were collected through semi-structured interviews, classroom observations, and

document analysis. The interviews provided rich qualitative data on the participants'

experiences, challenges, and perceived outcomes of using media tools. Each interview lasted

approximately 30-45 minutes and was conducted in a private setting to encourage open

responses. Classroom observations were conducted over a two-week period to witness real-

time interactions facilitated by media tools. The observations focused on student participation,

collaboration, teacher-student interaction, and the use of technology to deliver content.

Observation checklists and field notes were used to document findings. Additionally, relevant

documents such as class schedules, online assignments, discussion threads, and feedback logs



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from platforms like Google Classroom and WhatsApp were analyzed to support triangulation of data.

Data Analysis

Thematic analysis was used to analyze the collected data. Interview transcripts and observation notes were coded manually to identify recurring themes and patterns. The themes were then categorized under three broad areas: usage of media tools, impact on student interactivity, and challenges to effective integration.

To ensure trustworthiness, triangulation was employed across the different data sources. Member checking was conducted by sharing preliminary findings with a subset of participants to validate interpretations. Ethical clearance was obtained from the school authorities, and informed consent was secured from all participants, with confidentiality and anonymity strictly maintained throughout the study.

Findings and Discussion

The findings of the study are organized into three major themes: (1) the utilization of media tools, (2) their influence on student interactivity, and (3) the challenges experienced in integrating digital tools for active learning. The discussion integrates participant experiences with broader pedagogical insights to highlight the transformative, yet complex, role of media tools in Zambian secondary schools.

1. Utilization of Media Tools in the Classroom

The study found that media tools such as WhatsApp, Google Classroom, and Zoom were actively used to supplement face-to-face instruction. Teachers reported using **Google Classroom** to assign homework, upload learning materials, and track student submissions. The platform's features allowed teachers to provide timely feedback and monitor individual learner progress.

One teacher remarked: "It helps me keep track of students who are active and those who are lagging behind. The comments section gives room for individual support."

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WhatsApp was the most commonly used tool due to its low data consumption and wide accessibility. Teachers used it to form class groups where learning materials, voice notes, and motivational messages were shared. Students found WhatsApp effective for clarifying doubts and engaging in peer discussions.

Zoom, while less frequently used due to connectivity issues, was employed for live classes, especially during exam preparation. Its features—such as screen sharing and breakout rooms—enabled virtual group activities, making remote instruction more dynamic.

The findings confirm that digital tools have been integrated into teaching strategies, albeit unevenly. Usage levels depended on teacher confidence, school policies, and availability of resources.

2. Influence on Student Interactivity

One of the most significant outcomes observed was the **increase in student participation and collaboration**. Students who were typically reserved in physical classrooms were more likely to ask questions and share opinions through digital platforms.

A Grade 11 student shared: "In class, I hesitate to speak, but on WhatsApp I feel comfortable asking questions, even late at night. I get answers from both teachers and classmates."

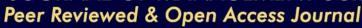
The asynchronous nature of platforms like Google Classroom allowed students to reflect before responding, enhancing the quality of their engagement. Some students also cited **gamification elements** in online quizzes and interactive polls as motivating factors.

Furthermore, **collaborative learning** was strengthened. Shared documents on Google Drive allowed multiple students to work on group assignments simultaneously, fostering team spirit and digital fluency. Group chats facilitated academic discussions that extended beyond classroom hours.

Teachers observed that students became more **self-directed and responsible**, managing their own learning schedules and engaging with digital content independently. This behavior aligns with the principles of active learning, where students are not passive recipients of knowledge but active participants in the learning process.

3. Challenges to Effective Integration

Despite these positive trends, the study also uncovered several barriers to effective implementation.



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Digital inequality was a recurring theme. While some students had access to personal smartphones and stable internet, others relied on shared devices or experienced frequent network disruptions. Rural students were disproportionately affected, often missing virtual classes due to electricity or connectivity issues.

A teacher noted: "Sometimes I assign work and only half the class responds. It's not laziness—it's lack of access to gadgets or data bundles."

Additionally, **teacher preparedness** emerged as a limiting factor. Although some teachers adapted quickly, others expressed discomfort with technology, citing lack of training and technical support. This knowledge gap led to underutilization of advanced features on digital platforms.

Moreover, **overreliance on text-based communication** in platforms like WhatsApp presented challenges for learners with low literacy or learning disabilities. Teachers also struggled to maintain academic discipline in virtual spaces, where students sometimes diverted discussions to off-topic conversations.

Concerns around data privacy and screen fatigue were also raised. Some students reported increased stress due to constant notifications and the blurred boundaries between school and home life.

Discussion

The findings reinforce existing literature on the potential of digital media to facilitate student-centered learning. Tools like Google Classroom and WhatsApp enable **personalized feedback**, **increased autonomy, and peer interaction**, which are hallmarks of active learning environments. These platforms dismantle traditional power hierarchies in classrooms, allowing students to communicate more freely and confidently.

However, the study also demonstrates that **access alone does not guarantee engagement**. Effective use of media tools requires teacher training, student digital literacy, and supportive school leadership. Equity remains a critical issue; any strategy to scale up media tool adoption must prioritize inclusivity to ensure that no learner is left behind.

Furthermore, the **blended learning model**—combining digital and in-person instruction—emerges as a pragmatic approach in resource-limited contexts. It leverages the strengths of technology while retaining the benefits of classroom interaction. Policymakers should thus



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support hybrid infrastructures and invest in tools that are low-cost, mobile-friendly, and contextually adaptable.

Conclusion

This study examined the role of digital media tools in enhancing student interactivity and promoting active learning in selected Zambian secondary schools. The findings demonstrate that platforms such as WhatsApp, Google Classroom, and Zoom have contributed to increased student participation, collaboration, and engagement. Students felt more comfortable expressing themselves through digital channels, while teachers noted improvements in learner autonomy and academic responsibility.

However, the effectiveness of these tools is not uniform. Factors such as access to devices, internet connectivity, teacher training, and digital literacy significantly affect outcomes. While some learners thrived in digitally mediated environments, others struggled due to systemic barriers. These disparities underscore the need for an inclusive approach that recognizes infrastructural and pedagogical limitations.

Overall, the integration of media tools into teaching and learning holds great promise for transforming education in Zambia and beyond. Yet, for their potential to be fully realized, media tools must be embedded within a broader framework of support, capacity building, and equity-focused policy design.

Recommendations

- 1. **Invest in Digital Infrastructure** Provide affordable and stable internet connectivity, electricity, and access to digital devices in all schools, especially in rural areas.
- 2. **Teacher Professional Development** Organize continuous training programs to improve teachers' digital competencies and confidence in using media tools for instruction.
- 3. **Promote Blended Learning Models** Combine traditional face-to-face teaching with digital platforms to balance accessibility and pedagogical richness.
- 4. **Develop Inclusive Digital Policies** Ensure that platforms accommodate students with disabilities and offer features in local languages and low-bandwidth formats.
- 5. **Monitor and Evaluate** Establish mechanisms to assess the effectiveness of media tools regularly, using student feedback and academic performance as benchmarks.



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By implementing these strategies, schools can create more interactive, inclusive, and student-centered learning environments that prepare learners for the demands of a digital world.

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