

THE ALIGNMENT OF LESSON PLANS WITH THE CURRICULUM FOR SCIENCE STUDENT TEACHERS DURING SCHOOL EXPERIENCE: A CASE STUDY OF MUKUBA UNIVERSITY

Abstract

This study investigates the alignment of lesson plans with the prescribed curriculum, teaching methods, and assessment practices employed by student teachers during their school experience. The study aims to understand how effectively student teachers implement the curriculum, the challenges they face in doing so, and whether their teaching methods and assessments align with the intended educational outcomes. A mixed-methods approach was adopted, combining qualitative data from focus group discussions and semi-structured interviews with quantitative data gathered through analysis of lesson plans and classroom observations. The findings revealed a significant misalignment between the syllabus prescribed topics and those planned in the lesson plans. Additionally, student teachers predominantly used teacher-centered methods, such as lectures and expositions, while learner-centered approaches, such as group work, debates, and field trips, were underutilized. Assessment practices were found to be largely summative, with little emphasis on formative assessments, which contradicts the curriculum's intentions of promoting continuous student evaluation. The findings also suggested that student teachers' focus on preparing students for exams led to an overemphasis on rote learning and a lack of active student participation. Qualitative data from focus group discussions indicated that factors such as limited resources, insufficient mentorship, and a lack of professional development opportunities contributed to these challenges. The study recommends that teacher training programs place greater emphasis on improving student teachers' understanding of the curriculum, the application of learner-centered teaching methods, and the use of diverse formative assessments. Additionally, there is a need to shift the focus away from an exam-centric approach towards fostering deeper, more meaningful learning experiences. This research offers crucial insights into the alignment of teaching practices with curriculum objectives, suggesting strategies for enhancing teacher preparedness and fostering more effective teaching and learning environments.

Keywords: curriculum alignment, student teachers, teaching methods, learner-centered teaching, formative assessment, summative assessment, teaching for exams, curriculum implementation, teacher training, educational outcomes, professional development.

1. INTRODUCTION

The alignment of lesson plans with the curriculum forms the foundation of effective science education, particularly in preparing students to grasp complex and abstract scientific concepts. Science subjects such as physics, chemistry, and biology demand pedagogical approaches that are not only logically structured but also aligned with established learning objectives to maximize comprehension and application. Misalignment of lesson plans with the curriculum risks undermining students' mastery of fundamental concepts and their ability to develop critical thinking, problem-solving, and innovative skills essential in addressing societal and global challenges. This concern is especially relevant for science student teachers, who must transition from theoretical coursework to practical teaching during their school experience.

Globally, the alignment of lesson plans with the curriculum is a critical determinant of educational quality, as underscored by international frameworks like the United Nations Sustainable Development Goals (SDGs). Specifically, Goal 4 seeks to ensure inclusive and equitable quality education, while Goal 9 emphasizes innovation and technological advancement through education. Science education plays a pivotal role in achieving these goals by equipping learners with the knowledge and skills needed to address pressing global challenges, including climate change, food security, and public health crises. Research by Darling-Hammond et al. (2020) highlights that effective alignment of lesson plans fosters student engagement, improves academic outcomes, and strengthens the connection between classroom learning and real-world applications.

Across Africa, the challenges of aligning lesson plans with the curriculum are particularly pronounced, given the region's diverse educational systems and resource constraints. Effective science education is widely recognized as a critical enabler of socioeconomic transformation on the continent. However, studies reveal that many African countries face systemic issues in curriculum implementation, teacher training, and resource allocation, which contribute to misalignment and suboptimal learning outcomes. According to Muthwii and Ngatia (2016), African teachers often struggle with interpreting and implementing curricula due to inadequate training and limited access to teaching aids, leading to fragmented lesson delivery and uneven student performance in science subjects.

In Zambia, these issues resonate strongly within the broader context of educational reform and capacity building. The Revised Curriculum Framework for Zambia (Ministry of General Education, 2014) emphasizes the integration of scientific knowledge and practical skills to prepare learners for national and global challenges. However, science student teachers often encounter significant barriers in achieving this goal during their school experience. These challenges include adapting to diverse classroom environments, effectively utilizing laboratory resources, and addressing varying levels of student preparedness. Mukuba University, Zambia's leading institution for training science teachers, plays a pivotal role in bridging the gap between theoretical learning and practical application. Yet, the institution faces critical challenges in ensuring that student teachers align their lesson plans with the national curriculum, a task that requires robust training, mentorship, and resource support.

This study addresses these concerns by exploring the practices and challenges of aligning lesson plans with the curriculum for science student teachers at Mukuba University during their school experience. Specifically, the study aims to investigate the methods of teaching employed, the assessment strategies utilized, and the challenges encountered in aligning lesson plans with curriculum objectives. By addressing these aspects, the study seeks to provide actionable recommendations to enhance teacher training programs and improve curriculum implementation. The relevance of this study extends beyond Zambia, as it aligns with global priorities for improving teacher preparedness and educational quality. The findings will contribute to the growing body of literature on teacher education and curriculum alignment, providing insights into how teacher training institutions can better equip future educators to meet the demands of science education in a rapidly changing world. Furthermore, by examining the alignment of lesson plans with the curriculum, this study supports the broader goal of transforming science education into a catalyst for sustainable development, innovation, and national growth.

2. LITERATURE REVIEW

The alignment of lesson plans with curriculum objectives is a central theme in teacher education, as it has a profound impact on the effectiveness of teaching and learning. Ensuring that lesson plans align with curriculum standards is crucial for promoting coherent, goal-oriented instruction. This review synthesizes existing literature on the alignment of lesson plans with curriculum

objectives, specifically focusing on science student teachers during their school experience placements. It will explore the global perspective, with an emphasis on African and Zambian contexts, identify gaps in the literature, and justify the need for further research in this area.

2.1 Global Perspective on Curriculum Alignment

The importance of curriculum alignment in improving educational quality is widely acknowledged in educational research. Darling-Hammond et al. (2020) argue that curriculum alignment helps ensure consistency across educational standards, instructional methods, and assessments, ultimately leading to enhanced student outcomes. In science education, aligning lesson plans with curriculum objectives is crucial for fostering scientific literacy and preparing students for real-world problem-solving. Studies have shown that when curricula are well-aligned, educators can better meet the diverse needs of students, providing them with relevant, coherent instruction (Alsubaie, 2016).

However, while global studies underscore the importance of curriculum alignment, they also highlight significant challenges in its practical implementation. In many countries, teachers struggle to align their teaching practices with curriculum frameworks, often due to limited resources, inadequate professional development, and a lack of effective mentorship. Arshad et al. (2019) emphasize that curriculum alignment is not just about content delivery but also about employing effective pedagogical strategies that engage students and promote higher-order thinking. This requires extensive teacher training, which many educational systems globally are still working to strengthen.

2.2 Curriculum Alignment in the African Context

In Africa, curriculum alignment has been a key area of focus in educational reforms, particularly as countries strive to meet the goals of Education for All (EFA) and Sustainable Development Goal 4 (SDG 4). Studies on curriculum alignment in African countries have revealed significant challenges, including insufficient training for teachers and a lack of alignment between curriculum expectations and the resources available in schools (Vavrus et al., 2011). In countries such as Kenya, Uganda, and South Africa, teacher education programs have faced difficulties in ensuring

that student teachers are adequately prepared to align their lesson plans with curriculum standards (Muthwii & Ngatia, 2016).

In Sub-Saharan Africa, limited access to professional development opportunities and educational resources has hindered the successful implementation of curriculum reforms. For example, large class sizes, limited teaching materials, and insufficient access to technology have all been cited as barriers to effective curriculum implementation in countries such as Zambia (Ngoma et al., 2021). Despite these challenges, several African countries have taken steps to integrate more inquiry-based, student-centered approaches into their curricula. However, the success of these initiatives remains contingent on the ability of teachers, particularly student teachers, to effectively align their lesson plans with these innovative curriculum frameworks.

2.3 Curriculum Alignment in Zambia

In Zambia, the Revised Curriculum Framework (Ministry of General Education, 2014) introduced a new approach to teaching, emphasizing inquiry-based, hands-on learning and critical thinking skills, particularly in the science subjects. This framework seeks to promote student-centered learning, where students actively engage in the process of knowledge construction rather than passively receiving information. While this shift in educational philosophy is commendable, research shows that the implementation of this curriculum remains problematic at the classroom level.

Chanda (2018) notes that student teachers in Zambia often struggle to align their lesson plans with curriculum objectives due to insufficient practical teaching experience and limited guidance from mentor teachers. This challenge is exacerbated by the large class sizes and lack of modern teaching resources, which make it difficult to implement the student-centered strategies advocated in the Revised Curriculum Framework. Additionally, the gap between curriculum design and classroom realities has been identified as a key factor undermining effective curriculum alignment in Zambia (Ngoma et al., 2021). Although teacher education programs in Zambia have integrated aspects of the Revised Curriculum Framework, the gap between theory and practice remains a persistent issue.

2.4 The Role of Teacher Education in Curriculum Alignment

Effective teacher education is essential for ensuring that student teachers are able to align their lesson plans with curriculum standards. Research suggests that teacher education programs need to focus not only on subject matter knowledge but also on pedagogical skills that help student teachers integrate curriculum objectives into their teaching practices (Darling-Hammond et al., 2020). In the context of science education, this involves providing student teachers with both the theoretical knowledge of the curriculum and the practical tools necessary to design and deliver effective science lessons.

However, studies show that many teacher education programs, especially in developing countries, face significant challenges in providing this level of preparation. In Zambia, for example, teacher education programs often struggle with resource constraints, inadequate mentorship, and a lack of continuous professional development for both student teachers and mentor teachers (Muthwii & Ngatia, 2016). This has implications for the ability of student teachers to align their lesson plans with the curriculum effectively, as they may not receive the necessary guidance or practice in applying curriculum frameworks to their teaching.

2.5 Gaps in Existing Literature

While the literature on curriculum alignment is extensive, there are notable gaps in the research, particularly concerning the alignment of lesson plans in science education within the African and Zambian contexts. Most studies focus on general curriculum alignment across subjects or on teacher education in high-income countries, with limited attention to the specific challenges faced by student teachers in science education in sub-Saharan Africa. Additionally, while there is considerable research on curriculum reforms, there is a lack of in-depth studies examining how science student teachers align their lesson plans with curriculum frameworks during their school experience placements.

Furthermore, existing research has largely neglected the role of mentorship and support systems in helping student teachers manoeuvre the process of curriculum alignment. Few studies explore the specific pedagogical methods and assessment practices used by student teachers in science education, or the challenges they encounter in trying to align their lesson plans with the curriculum

in real classroom settings. This gap is significant, as it hinders the development of targeted strategies for improving curriculum alignment in teacher education programs.

Given the gaps identified in the existing literature, there is a clear need for further research on the alignment of lesson plans with the curriculum in science teacher education programs in Zambia and similar contexts. This study aims to address these gaps by focusing specifically on science student teachers' experiences during their school experience placements at Mukuba University. By examining the methods of teaching, assessment practices, and challenges encountered by student teachers, this research will contribute to a more nuanced understanding of the practical aspects of curriculum alignment.

3. METHODOLOGY

This research used a mixed-methods approach, incorporating both quantitative and qualitative data collection techniques. This approach was designed to comprehensively address the study's objectives, which included examining teaching methods, assessment practices, and the challenges faced in curriculum alignment.

3.1 Research Design

A case study design was adopted to allow for an in-depth exploration of the phenomenon within its real-life context. This design was particularly suited to the research objectives as it enabled a detailed understanding of how student teachers interpreted and implemented the curriculum through lesson planning. According to Yin (2018), case studies are ideal for investigating complex issues where the boundaries between the phenomenon and the context are not clearly defined. In this study, the case of Mukuba University served as a microcosm for examining curriculum alignment challenges and practices in teacher education.

3.2 Population and Sampling

The study targeted 220 science student teachers who had completed their school experience placements during the 2023 academic year. These student teachers represented a diverse

population, having been placed in various schools across Zambia, each with unique teaching contexts and challenges. The diversity within the population allowed for a rich exploration of factors influencing curriculum alignment.

A sample of 50 student teachers was selected using purposive sampling. This sampling method ensured that participants with the most relevant experiences and insights were included in the study. The sample represented a range of placement schools, teaching environments, and individual backgrounds, ensuring the findings reflected a broad spectrum of challenges and practices. Additionally, 10 mentor teachers from placement schools were included in the study to provide an external perspective on the student teachers' lesson planning and curriculum alignment.

3.3 Data Collection Methods

To ensure a comprehensive and reliable analysis of the alignment between the lesson plans and the prescribed curriculum, the study employed multiple data collection methods. These methods were designed to capture both quantitative and qualitative data, which provided a well-rounded understanding of the challenges and practices of the student teachers.

3.3.1 Lesson Plan Analysis

The study began with a detailed analysis of 250 lesson plans, which were prepared by 50 sampled student teachers. These lesson plans were scrutinized to assess how closely they adhered to the Zambian science curriculum. Several key components were examined in the analysis, including the clarity and specificity of the learning objectives, the instructional strategies employed, the integration of inquiry-based methods, and the alignment with assessment requirements. The lesson plan analysis aimed to identify whether the student teachers' plans reflected the prescribed curriculum's intended outcomes, methods, and content. This step was crucial in understanding the extent to which the lesson plans were consistent with the curriculum guidelines and how effectively they addressed the learning objectives.

3.3.2 Questionnaires

Structured questionnaires were administered to all 50 student teachers. These questionnaires were designed to gather quantitative data on the participants' perceptions of curriculum alignment, teaching methods, and the challenges they faced while implementing the curriculum. The questionnaire included a mix of closed-ended Likert-scale items, which allowed for the quantification of responses related to various aspects of teaching practice. Additionally, open-ended questions were included to capture the students' personal insights and reflections on their experiences. The responses provided valuable information regarding the student teachers' attitudes towards curriculum alignment and the practical barriers they encountered, such as time constraints, lack of resources, and difficulties in integrating certain teaching methods.

3.3.3 Focus Group Discussions

In addition to the questionnaires, three focus group discussions were conducted, each consisting of 10–12 student teachers. The purpose of these discussions was to provide a platform for participants to collectively share their experiences, challenges, and strategies related to curriculum alignment and lesson planning. The discussions were semi-structured, allowing for both guided exploration of specific themes and spontaneous contributions. This format enabled a rich, collaborative exchange of ideas and insights among the student teachers. The focus groups were instrumental in uncovering the common challenges faced by student teachers in interpreting and implementing the curriculum, as well as the coping mechanisms they employed. The qualitative data gathered from the focus groups helped to contextualize and deepen the understanding of the quantitative findings obtained through the questionnaires.

3.3.4 Semi-Structured Interviews

To gain a deeper understanding of the student teachers' experiences, in-depth interviews were conducted with 15 student teachers and 10 mentor teachers. These semi-structured interviews allowed for more nuanced exploration of the participants' views on lesson planning and curriculum implementation. The interviews focused on key issues such as how lesson plans were developed, the alignment between the planned lessons and the prescribed curriculum, and the challenges faced in maintaining curriculum fidelity. The flexibility of the semi-structured format enabled the interviewer to probe specific areas of interest based on the interviewees' responses. The interviews

were audio-recorded, transcribed, and analyzed to identify recurring themes and patterns in the participants' experiences. These qualitative insights provided a richer understanding of the contextual factors influencing curriculum alignment, including mentorship practices, resource availability, and individual teacher beliefs.

3.3.5 Document Review

Lastly, the study involved a review of several relevant documents, including curriculum guides, placement guidelines, and feedback reports from mentor teachers. This document review helped provide additional context to the findings, offering insight into the official standards, expectations, and regulations that govern lesson planning for student teachers. The documents provided essential background information on the curriculum's structure and objectives, as well as on the mentorship process. They also helped to clarify the expectations placed on the student teachers and the types of feedback they received from their mentors. By cross-referencing the findings from the document review with the data obtained from the other methods, the study ensured that the analysis was grounded in the broader institutional and educational framework.

3.4 Data Analysis

Data analysis combined quantitative and qualitative approaches to ensure a holistic interpretation of the findings. Quantitative data from the questionnaires were analyzed using descriptive and inferential statistics. Frequencies, percentages, and mean scores were used to summarize the responses, while statistical tests such as chi-square and t-tests were employed to identify significant relationships or differences among variables.

Qualitative data from focus group discussions, interviews, and document reviews were analyzed using thematic analysis. Following Braun and Clarke's (2006) framework, the data were coded to identify recurring themes and patterns. These themes were categorized into three main areas: teaching methods, assessment practices, and challenges in curriculum alignment. The integration of quantitative and qualitative data provided a comprehensive understanding of the research problem.

3.5 Ethical Considerations

Ethical approval for the study was obtained from Mukuba University’s institutional review board. All participants provided informed consent, ensuring they were fully aware of the study’s purpose, procedures, and their right to withdraw at any time without penalty. Confidentiality and anonymity were maintained throughout the research process by anonymizing participant responses and securely storing data. Additionally, the study adhered to ethical guidelines by respecting participants’ privacy and ensuring that no harm came to them as a result of their involvement.

4. FINDINGS

This section summarizes the findings of the study on the alignment between the lesson plans prepared by student teachers and the content prescribed in the syllabus.

4.1 Alignment of Lesson Plans with Syllabus Content

Table 1: Alignment of Lesson Plans with Syllabus Content

Alignment with Syllabus Frequency Percentage		
Fully Aligned	12	24%
Partially Aligned	23	46%
Misaligned	15	30%

Table 1 shows that the majority of student teachers (46%) produced lesson plans that were partially aligned with the prescribed syllabus, and 30% created lesson plans that were significantly misaligned. Only 24% of the lesson plans were fully aligned with the syllabus. The above findings were corroborated by the qualitative data. For instance, teacher stated:

Sometimes, I skip certain topics from the syllabus because I feel like they aren't necessary for the students to understand the basics. I make changes based on what I think is most relevant. (Teacher 1, Interview, 2023)

This statement directly reflects the misalignment seen in the data. Teacher 1's decision to omit certain topics without considering their importance in the syllabus contributes to the significant number of lesson plans being misaligned. Another teacher substantiated by stated:

I try to cover everything in the syllabus, but some topics are too complicated for the time I have. I do my best to teach what I think will be on the exam. (Teacher 2, Interview, 2023).

The above shows that this teacher's focus on teaching what is deemed most relevant for exams explains the partial alignment observed in the data. Although most topics are covered, the emphasis on exam content causes certain topics to be deprioritized.

4.2 Teaching Methods Used by Student Teachers

The findings on the methods presents the frequency of various teaching methods used by student teachers and compares them with those prescribed in the syllabus as detailed in table 2.

Table 2: Teaching Methods Used by Student Teachers

Teaching Method	Frequency	Percentage
Teacher Exposition (Lecture)	30	60%
Group Work	8	16%
Field Trips	4	8%
Debates	3	6%
Case Study Analysis	5	10%

Table 2 shows that majority of student teachers (60%) used Teacher Exposition (Lecture) as their primary teaching method, which is a traditional, teacher-centered approach. Group Work (16%), Field Trips (8%), and Debates (6%) were used infrequently, despite being prescribed in the syllabus as essential methods for fostering active, learner-centered engagement. The above findings were supported by qualitative data from the interviews. For example, a teacher stated:

I prefer lectures because they are efficient and allow me to cover a lot of content quickly. Group work can be chaotic, and I'm not sure how to manage it effectively. (Teacher 1, interview, 2023).

Teacher 1's comment directly reflects the data, showing a clear preference for teacher-centered methods due to perceived efficiency and control over the classroom. Similar sentiments were shared by another teacher:

I would love to organize field trips or debates, but there are always logistical issues—getting permission, arranging transport—it’s just too much. I focus on lectures because it’s straightforward. (Teacher 2, interview, 2024)

This teacher’s explanation of logistical challenges reinforces the low usage of methods like Field Trips (8%) and Debates (6%), which require additional planning and resources, often unavailable to student teachers. The above findings are in line with qualitative data from the interviews and Focus Group Discussions (FGDs). A focus group discussion revealed:

Group work is helpful for deeper understanding, but I’m always unsure of how much of the syllabus I can cover if I focus too much on it. It’s a balancing act. (FGD, 2024)

The above response highlights the challenge of balancing interactive teaching methods with the pressure to cover syllabus content, explaining why Group Work is underused despite its advocacy in the syllabus.

4.3 Assessment Methods Used by Student Teachers

The findings on the assessments details the frequency of different assessment methods employed by student teachers and compares them with the assessment methods prescribed in the syllabus as detailed in table 3.

Table 3: Teaching Methods Used by Student Teachers

Assessment Method	Frequency Percentage	
Summative Assessment (Exams)	40	80%
Formative Assessment (Homework, Quizzes)	8	16%
Peer Assessment	2	4%

Table 3 show s that student teachers mainly use Summative Assessments (80%) is observed, particularly exams, which are frequently used to assess student learning. Formative sssessments (16%) and Peer Assessments (4%) were used infrequently, despite being recommended in the

syllabus to encourage continuous feedback and active learning. The qualitative data also revealed similar results. A teacher stated:

I mostly give exams because that's the easiest way to measure their progress. I don't have time to grade quizzes or assignments regularly. (FGD, 2023).

The above statement shows teachers' focus on exams as the main assessment tool directly correlates with the high frequency of summative assessments in the data. This teacher values the efficiency of exams over the ongoing feedback that formative assessments would provide. The foregoing was substantiated by another teacher who stated:

I know quizzes and homework are important, but I'm under pressure to finish the syllabus. It's hard to balance continuous assessment with all the content I need to cover. (FGDs, 2024).

The above statement emphasizes the challenge of balancing formative assessments with the need to cover the syllabus content, which likely contributes to the underutilization of **Formative Assessments** in favor of more traditional summative assessments. Another teacher substantiated by stating that:

I don't really use peer assessments because I don't trust that the students will give accurate feedback. It feels like extra work for me. (FGDs, 2024)

The comment above clarifies why Peer Assessments (4%) are rarely used, pointing to a lack of confidence in students' ability to provide constructive feedback, as well as an additional workload for the teacher.

5. DISCUSSION

This section critically examines the findings regarding the challenges faced by student teachers in aligning their lesson plans, teaching methods, and assessments with the prescribed curriculum. The key issues identified in the study revolve around the misalignment between lesson plans and the syllabus, overreliance on teacher-centered methods, and limited use of formative and peer assessments.

5.1 Misalignment Between Lesson Plans and Syllabus

A critical finding from the study is the significant misalignment between lesson plans prepared by student teachers and the prescribed syllabus. This misalignment can be attributed to the systemic pressures within the education system, where student teachers often prioritize exam-based content. This phenomenon is not unique to the current study; previous research has shown that high-stakes testing environments encourage teachers to focus primarily on content likely to appear on exams, often neglecting broader curriculum goals (Madaus & Russell, 2009). While this approach may ensure better exam results, it undermines the development of critical thinking, creativity, and other important educational outcomes.

Moreover, the practice of omitting certain syllabus topics due to perceived irrelevance or time constraints reflects a lack of confidence among student teachers. Schön's (1983) concept of reflective practice suggests that teachers need to engage in reflective thinking to consider the broader implications of their lesson planning decisions. By fostering self-reflection and providing adequate mentorship, teacher preparation programs can help student teachers recognize the importance of addressing the full range of syllabus content, even when it does not directly align with exam requirements.

5.2 Overreliance on Teacher-Centered Methods

Another significant finding was the overreliance on teacher-centered methods, particularly lectures, despite the emphasis in the curriculum on learner-centered approaches, such as group work and debates. This trend is consistent with research that highlights the persistence of traditional teaching methods in many educational contexts (Vavrus et al., 2011). Teacher-centered methods, while efficient for delivering content, do not facilitate student engagement or deeper learning. This overreliance may stem from a lack of confidence in managing more interactive teaching strategies or concerns about the classroom environment (Bandura, 1997).

The theory of self-efficacy proposed by Bandura (1997) helps explain this reliance on traditional methods. When student teachers feel uncertain about their ability to effectively implement learner-centered approaches, they are more likely to revert to teacher-centered methods, which they perceive as easier to control. This issue is further compounded by logistical challenges, such as large class sizes and inadequate resources, which make it difficult for teachers to engage students through group work or interactive learning (Alexander, 2008).

Addressing this issue requires teacher preparation programs to focus on equipping student teachers with practical experience in managing diverse teaching strategies, including collaborative and inquiry-based learning. Teacher educators should provide opportunities for student teachers to practice and reflect on these methods in supportive environments to build their confidence and competence.

5.3 Limited Use of Formative and Peer Assessments

The study found that student teachers predominantly relied on summative assessments, with limited use of formative and peer assessments. Formative assessments, such as quizzes, discussions, and projects, provide ongoing feedback that can inform teaching and learning. However, the emphasis on summative assessments, such as exams, often leaves little room for these more formative methods. This underuse of formative assessments has been highlighted in other studies, which suggest that formative assessments play a crucial role in enhancing student learning and guiding instructional decisions (Black & Wiliam, 1998).

One possible explanation for the limited use of formative assessments is the pressure student teachers feel to cover the syllabus and prepare students for exams. This is particularly true in education systems where high-stakes testing dominates the assessment landscape. As Heritage (2010) points out, formative assessments are crucial for supporting student learning, but they require time and effort to implement effectively, which can be a challenge in fast-paced teaching environments. Additionally, the underuse of peer assessments, while a valuable tool for promoting student collaboration and responsibility, may be due to concerns about the reliability of peer feedback. Falchikov (2005) notes that successful peer assessment requires clear guidelines and adequate training. Without these, student teachers may feel uncertain about the quality of peer assessments and may avoid using them altogether.

Teacher preparation programs can play a key role in addressing these challenges by providing student teachers with training in designing and implementing formative and peer assessments. Such training should include strategies for giving constructive feedback, managing peer assessments in large groups, and integrating ongoing assessment into daily teaching practices.

6. CONCLUSION

In conclusion, the findings of this study highlight the challenges faced by student teachers in aligning their lesson plans, teaching methods, and assessments with the prescribed curriculum. The misalignment between lesson plans and the syllabus, overreliance on teacher-centered methods, and limited use of formative and peer assessments all point to systemic and professional challenges that need to be addressed. The findings of this study point to several key areas where improvements can be made. First, curriculum alignment needs to be addressed, as student teachers are not consistently following the prescribed syllabus, potentially due to inadequate training in syllabus interpretation and time constraints. Second, the overreliance on teacher-centered methods and summative assessments needs to be addressed in favor of more learner-centered approaches and formative assessments that better support continuous learning and student engagement. To address these issues, it is essential that teacher training programs emphasize constructive alignment by ensuring that student teachers are equipped with the skills to interpret the syllabus effectively and align their teaching methods and assessments with the intended learning outcomes. Additionally, schools should invest in providing the resources and support needed to implement more interactive teaching methods, such as group work and field trips. Lastly, the emphasis on teaching for exams must be reexamined, as this focus can limit student development and learning outcomes. Education should prioritize long-term skill development over short-term exam success to prepare students for the complexities of the modern world. By fostering a more holistic approach to teaching and learning, we can help create an educational system that better aligns with the needs and goals of both students and society.

REFERENCES

- Alsubaie, M. A. (2016). Curriculum development: Teacher involvement in curriculum development. *Journal of Education and Practice*, 7(9), 106–107.
- Alexander, R. J. (2008). *Essays on pedagogy*. Routledge. ISBN 978-0415420353
- Arshad, M., Ahmad, A., & Ahmad, A. (2019). Aligning the science curriculum with students' needs: A study of curriculum coherence. *International Journal of Science Education*, 41(7), 900–917. <https://doi.org/10.1080/09500693.2019.1627043>

- Bandura, A. (1997). *Self-efficacy: The exercise of control*. W.H. Freeman. ISBN 978-0716728504
- Bell, D. (2015). *Curriculum design and implementation in the classroom: A guide for educators*. Routledge. ISBN 978-0415534477
- Black, P., & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education: Principles, Policy & Practice*, 5(1), 7-74. <https://doi.org/10.1080/0969595980050102>
- Black, P., & Wiliam, D. (2009). Developing formative assessment in the classroom. *Assessment in Education: Principles, Policy & Practice*, 13(1), 1-19. <https://doi.org/10.1080/09695940902913001>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Chanda, C. (2018). Challenges in implementing the revised curriculum in Zambian secondary schools. *Zambia Journal of Teacher Education*, 5(2), 45–56.
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1532617>
- Entwistle, N. (2013). *Teaching for understanding at university*. Routledge. ISBN 978-0415678508
- Falchikov, N. (2005). *Improving assessment through student involvement: Practical solutions for aiding learning in higher and further education*. Routledge. ISBN 978-0415319477
- Heritage, M. (2010). *Formative assessment: Making it happen in the classroom*. Corwin Press. ISBN 978-1412968065
- Kyndt, E., et al. (2016). The relationship between teacher’s teaching style and their ability to interpret the curriculum. *Teaching and Teacher Education*, 55, 1-10. <https://doi.org/10.1016/j.tate.2016.01.012>
- Lambert, M., Velez, M., & Elliot, M. (2014). Practical constraints on using alternative teaching strategies. *Journal of Educational Research and Practice*, 4(1), 13-25. <https://doi.org/10.18666/JERAP-2014-V4-I1-4562>
- Madaus, G., & Russell, M. K. (2009). *Paradoxes of high-stakes testing: How they affect students, their parents, teachers, principals, schools, and society*. Information Age Publishing. ISBN 978-1593116797
- Mayer, R. E. (2014). *The Cambridge Handbook of Multimedia Learning*. Cambridge University Press. ISBN 978-1107022116

Ministry of General Education. (2014). *Revised Curriculum Framework for Zambia*. Lusaka: Government of Zambia.

Muthwii, S. M., & Ngatia, C. W. (2016). Challenges of implementing curriculum reforms in Africa: Lessons from Kenya and Uganda. *International Journal of Educational Development*, 50, 20–29. <https://doi.org/10.1016/j.ijedudev.2016.06.002>

Ngoma, M., Siwela, T., & Phiri, C. (2021). Teacher preparedness in implementing STEM curricula in Zambia. *African Journal of Educational Studies in Mathematics and Sciences*, 17(2), 45–56.

Prosser, M., & Trigwell, K. (1999). *Understanding learning and teaching: The experience in higher education*. Society for Research into Higher Education & Open University Press. ISBN 978-0335199260

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books. ISBN 978-0465068784

Vavrus, F., Thomas, M., & Bartlett, L. (2011). Ensuring quality by attending to inquiry: Learner-centered pedagogy in Sub-Saharan Africa. *Fundamentals of Teacher Education Development*, 4. Paris: UNESCO International Institute for Capacity Building in Africa. ISSN 2077-1976

Vázquez, S. (2015). *Curriculum design and complexity: From theory to practice*. University of Barcelona Press. ISBN 978-8498447274

Yin, R. K. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications. ISBN 978-1506336169