Contents lists available at Science-Gate



International Journal of Advanced and Applied Sciences

Journal homepage: http://www.science-gate.com/IJAAS.html

Impact of pedagogical and curriculum policy implementation on quality education in Mogadishu, Somalia



Mohamed Osman Abdi Idris *, Abukar Mukhtar Omar, Mohamed Jama Mohamed, Abdikadir Abdullahi Hussein, Mohamedamin Moallin Omar Mohamed

Faculty of Education, SIMAD University, Mogadishu, Somalia

ARTICLE INFO

Article history: Received 18 July 2024 Received in revised form 24 November 2024 Accepted 22 December 2024

Keywords: Quality education Policy implementation Educational equity Curriculum challenges Teacher development

ABSTRACT

The quality of education in Africa is a critical factor in its efforts to align with industrialized nations. This study investigates the challenges affecting the implementation of pedagogical and curriculum policies in Somalia's education system, focusing on their impact on delivering quality education. Using a sample of 229 participants, including school principals, teachers, and stakeholders from private and public schools in Mogadishu, data were analyzed through SPSS 26 and R-methods, with reliability tests ensuring consistency. The findings reveal that effective implementation of these policies enhances educational quality by fostering critical skills, such as problem-solving and critical thinking while promoting equity and inclusion for all students. Collaborative efforts among policymakers, educators, and stakeholders are essential for bridging gaps from policy formation to application in schools. Recommendations emphasize professional development for educators, regular monitoring, and fostering innovation, which collectively aim to ensure equitable and high-quality education for all learners.

© 2024 The Authors. Published by IASE. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

Education plays a crucial role in the development and reconstruction of post-conflict societies such as Somalia (Wanjiru, 2021). Pedagogy, or the art and science of teaching, is key to the effectiveness of a curriculum and, ultimately, the level of education that students receive. Pedagogical practice results from the process of negotiating the possible pedagogical tools to reach their teaching objectives in the context of teaching (Jing and Abu, 2022) effective pedagogy involves selecting teaching approaches based on students' learning styles, prior experience, and individual requirements (Li et al., 2021). This ensures that the curriculum is accessible and interesting, promoting deeper knowledge and content retention (Unda-López et al., 2022). Traditional teacher-centered approaches are typically ineffective and fail to properly engage students (Chidubem Precious and Adewunmi Feyisetan, 2020). Modern pedagogy focuses on

* Corresponding Author.

Email Address: idris@simad.edu.so (M. O. A. Idris)

Corresponding author's ORCID profile:

https://orcid.org/0009-0000-2341-4327

2313-626X/© 2024 The Authors. Published by IASE.

This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

active learning, in which students actively participate in the learning process through conversations, projects, problem-solving exercises, and collaborative learning (Tan and Huet, 2021). This encourages critical thinking, communication skills, and a better understanding of the curriculum. A well-designed pedagogy encourages students to examine, analyze, and evaluate curriculum content in the curriculum (Umami, 2018). This encourages critical thinking, intellectual curiosity, and the ability to create autonomous ideas, resulting in a more nuanced comprehension of the subject. Effective teaching improves learning outcomes hv encouraging greater comprehension, engagement, and critical thinking (Handayani et al., 2019). Students are better able to retain the material, apply it in real-world settings, and demonstrate their learning through various examinations. Effective education equips students with not only subjectspecific knowledge but also essential 21st-century skills such as communication, cooperation, critical thinking, and problem-solving. These abilities are critical for success in a rapidly changing world, preparing students to be well-rounded individuals and engaged members of society (Csapó and Funke, 2017).

A curriculum policy refers to a set of uniform and consistent operational principles that guide the determination of what is taught and learned in

https://doi.org/10.21833/ijaas.2025.01.008

school (Lambert and Penney, 2020). Curriculum implementation, or implementing an educational program, has an important influence on the delivery of quality education. It reflects the transformation of educational goals, objectives, and standards into practical teaching and learning experiences in the classroom.

A well-designed and implemented curriculum clearly communicates the learning objectives and expected outcomes of students. This directs teachers and ensures that instructional activities align with their objectives, promoting targeted learning and advancement. Consistent curriculum implementation across schools and classrooms ensures that all students have access to the same basic information and skills within a given grade or subject area (Melesse and Gulie, 2019). This fosters equity and reduces inequities in educational possibilities, resulting in a more level playing field. Therefore, a well-structured curriculum includes various learning activities and assessments that extend beyond rote memory. It can promote critical thinking, problem-solving, communication, teamwork, and creativity, providing pupils with key skills for success in the twenty-first century. Effective curriculum implementation extends beyond simply addressing specific topics. It active learning through promotes various educational methodologies, hands-on activities, and real-world examples (Grimus, 2020). This can pique students' curiosity, increase their motivation, and make the learning experience more engaging and pleasurable. The effectiveness of any curriculum depends on the instructors who apply it (Jing and Abu, 2022). Inadequate training in curriculum materials, pedagogy, and evaluation methodologies can improve effective implementation and limit the advantages to students (Nakidien et al., 2021). Implementing a well-rounded curriculum may require various resources, including technology, learning materials, and teacher professional development opportunities (Nakidien et al., 2021). Insufficient resources can impede effective implementation and lower the quality of the learning experience. While standardization might be useful, a rigorous curriculum may fail to meet the needs of individual students or accommodate various learning styles. This can lead to disengagement and impede the success of students requiring further assistance or alternative ways (Wininger et al., 2019).

After decades of civil war and political instability, the Somali government recognized the urgent need for educational reforms to rebuild the nation and provide quality education to its citizens. Teacher educators play a critical role in shaping policy directions and future curriculum practices and add depth and sophistication to their understanding of teacher educators as policy actors, highlighting their importance in the ongoing enactment of a new curriculum (Lambert and Pennev. 2020). Pedagogical approaches and curriculum policies are fundamental components of these reforms as they

shape teaching and learning practices and determine the content and structure of the educational curriculum. Focusing on pedagogy, curriculum, and skill acquisition is critical for developing 21stcentury teaching skills (Martinez, 2022). Based on the style of the teacher's professional activity and the direction of the student's pedagogical training, a reliable positive result was revealed in increasing the academic performance of students at the pedagogical institute.

A considerable implementation gap emerged as a major obstacle to teachers' implementation of the New Curriculum requirements in their classroom practices due to a series of contextual constraints, teacher intransigence, namely examination imperatives. learner reluctance. and pedagogy/policy inconsistencies. It is necessary to address teachers' challenges and difficulties in the curriculum reform process to facilitate its implementation of the reform.

Somalia's educational system has encountered enormous obstacles for decades, including civil war and political instability. While the government recognizes the critical need for educational reforms, the successful implementation of pedagogical methodologies and curriculum policies remains a challenge. This article identifies and examines the major obstacles to implementing pedagogical and curriculum strategies in Somalia's educational system. Understanding these problems allows stakeholders to devise ways to overcome them, ensuring that children receive a thorough and appropriate education and create a bright future for Somali students.

The study sheds light on the implementation of pedagogical and curriculum policies in Somalia, analyzing the strategies, achievements, and obstacles encountered. The implementation of instructional policies has implications for policymakers, administrators, and teachers. By understanding the current state of pedagogical practices and curriculum policies, policymakers, educators, and stakeholders can identify areas that require further attention, and devise effective strategies to enhance educational outcomes.

Therefore, this study aims to determine the alignment between mandated pedagogical and curriculum policies and their actual execution in educational institutions by identifying areas where policies deviate from the intended goals and proposing solutions to bridge the gap.

This study formulated two hypotheses:

 H_1 : Teachers' pedagogical skills in the classroom significantly improve the provision of quality education.

 H_2 : The implementation of curriculum policies significantly affects the provision of quality education.

Pedagogical skills and curricular policies are two key components in providing quality education, and their interaction is critical for achieving effective teaching and learning results (Fig. 1). The curriculum policy establishes requirements for teachers to teach. Effective teachers apply their

pedagogical skills to transform these criteria into engaging and effective classes.



Fig. 1: Conceptual framework of pedagogical and curriculum policy interaction

2. Literature review

2.1. Teacher's pedagogical skill

The professionalism of teaching personnel is regarded as the most significant aspect of educational quality. Professional educators can effectively instruct children on resource and environmental constraints. However, developing a professional teacher is a difficult task. Teachers must be more dynamic and innovative when establishing student learning processes. Teachers must have appropriate competence in form and substance to ensure that the teaching process runs properly and efficiently.

Pedagogic competence is a form of competency that teachers must master. Pedagogic competence refers to a teacher's ability to supervise student learning. Pedagogic Competence is a differentiating competency that separates teachers from other professions and determines the success of the teaching process and student learning outcomes. This competency is not gained immediately but through constant and methodical learning efforts, both in the pre-service stage (education for prospective teachers) and during their tenure, backed by each teacher's abilities, interests, and other possibilities (Gabriele et al., 2019).

The teacher is a dominant and strategic element in the process of knowledge transfer. Teaching skills are hallmarks of the teaching profession. The achievement of learning goals and success in overcoming learning problems depends greatly on the ability or competence of teachers. However, in schools, much of the knowledge that students learn is contained in what happens in class. Everything that occurs in the classroom depends on the teacher's initiative to implement the curriculum in learning activities (Podolsky et al., 2019; Roehrig et al., 2007).

A teacher must be able to establish conducive learning environments for students to be successful in the learning process. Teaching is more than just transferring knowledge, it also includes experience and examples of engagement during the learning process. Education standards require teachers to possess competencies in pedagogy, personality, professionalism, and social work.

Strong pedagogical skills enable teachers to transform curricular content into engaging, effective classes. They can use tailored instruction, technology integration, and formative assessment to accommodate various learners and confirm their knowledge. When teachers use successful teaching methods, classrooms become more dynamic and student-centered. This promotes a love of learning, boosts motivation, and encourages involvement.

Teachers' experience allows them to identify curriculum aspects that may be unclear or lack practical application. Their instructional abilities might assist them in overcoming these gaps by developing interesting activities or alternative explanations (Nakidien et al., 2021).

A solid understanding of pedagogy enables policymakers to create a curriculum that considers different learning styles and allows for the use of various teaching methodologies. This flexibility implies that teachers with diverse pedagogical skills (Podolsky et al., 2019). Teachers involved in curriculum organizations have various duties and responsibilities. Teachers want to love teaching and seeing their students develop interests and talents in their field of expertise. Because the teacher's role is to apply the curriculum to suit the needs of the students, lesson plans, and syllabi may be required. Many studies have promoted teacher empowerment through participation in curriculum creation. The level of teacher involvement, as a focal point for curriculum creation, is linked to effective educational reform implementation. Consequently, the teacher plays a significant role in the success of curriculum creation, including the implications and assessment stages.

According to Alsubaie (2020), teacher involvement in curriculum creation is essential. Teachers can work cooperatively and efficiently with curriculum development teams and specialists to organize and create martial arts, textbooks, and content. Teacher involvement in the curriculum development process is critical for aligning curriculum content with the needs of the classroom (Alsubaie, 2020).

2.2. Curriculum policy implementation

The curriculum is the heart of education, and all educational institutions are obligated to develop instructional patterns in executing an independent curriculum as a form of innovation and responsiveness to current developments and challenges as well (Musthofa and Agus, 2022). Developments in education curricula to address the issues of the times, as well as the implementation of government policies in the field of education, will automatically impact curriculum management at all levels of education (Dieude and Prøitz, 2024; Melese and Tadege, 2019).

curriculum comprises all The learning experiences and expected learning objectives provided to students in a school (Hume and Coll, 2010). The curriculum also determines how the educational goals, objectives, and aims are met. A country's dreams and aspirations are supposed to be realized using the school curriculum as well as the modification and education of its youth. Considering the above explanations, school curricula must be imaginatively and painstakingly included or integrated, considering the stated needs of industry and the world at large. Curriculum implementation involves learners interacting with the program's contents and materials to develop the requisite skills, attitudes, and abilities. They defined curriculum implementation as a learner's real involvement with planned learning experiences. This indicates that curriculum implementation is the stage of the curriculum process in which the learner, guided by a teacher, engages in learning activities to optimize learning, as evidenced by the learner's new behavior or approach to challenges.

In addition, curriculum implementation must be evaluated to identify the best practices and problems. This can be accomplished by determining the kind of problems that teachers and students face so that the school administration can assist them in achieving better results (Haque and David, 2022).

2.3. Theoretical framework

This study employed social systems theory, also known as systems thinking or systems theory, which is an interdisciplinary approach to studying complex systems as integrated wholes made up of interconnected components. This theoretical perspective began in the natural sciences but has been widely utilized in various fields, including sociology, psychology, management, and education. Social Systems Theory provides a useful lens for understanding the impact of pedagogical and curriculum policy implementation on quality education by viewing educational institutions as complex social systems with interconnected components, students, such as teachers, administrators, curriculum materials, instructional methods, and organizational structures. When analyzing the impact of pedagogical and curriculum policy implementation, it is critical to analyze how

changes in one component can affect others. For example, a shift in pedagogical approaches enforced by curriculum policies may necessitate modifications to teacher training, classroom supply, and assessment practices. Researchers can gain insights into the complex interactions between policy, practice, organizational dynamics, and broader societal forces within educational systems by employing the Social Systems Theory to investigate the impact of pedagogical and curriculum policy implementation on providing quality education. This insight can help policymakers to build more effective implementation strategies and organizational reforms to improve educational quality.

3. Research method

This study examined how teachers' pedagogical skills and curriculum policy implementation influence the quality of education. The researchers formulated two hypotheses to measure how teachers' pedagogical skills and curriculum policy implementation are crucial to quality education. A questionnaire based on teachers' pedagogical skills and curriculum policy implementation was used to gather data. The questionnaire was divided into two parts: part one was the respondents' demographics, and part two consisted of five items for teachers' skills and curriculum pedagogical policv implementation impact on providing quality education. A questionnaire is a form with several questions explicitly addressed to a statistically significant number of individuals to gather quantitative data for the survey (Oshagbemi, 2003).

In this study, stratified random sampling was employed to select 16 schools from the Benadir region, ensuring a representative sample. The region was divided into four administrative zones (east, north, west, and central), with four schools randomly chosen from each zone. The survey included 229 individuals-principals, teachers, and stakeholders from both private and public schools in Mogadishu and 320 school officials in total. The sampling methodology prioritized accessibility, ensuring that the participants were readily available and could participate in the study. Since the researchers only included teachers and principals who were easily accessible to them, the study participants were chosen purposefully. The five categories on the Likert Scale (strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree) are used to gauge how much you agree with a statement.

SPSS 26 and R methods were used to analyze the data. A reliability test was conducted to ensure stability and consistency. Consistency with which an instrument yields the same data after repeated use is known as reliability (Considine et al., 2005). Cronbach's alpha measures an instrument's degree of reliability (Khidzir et al., 2018). The constructs, the number of components for each construct, and their alpha values are displayed in Table 1.

The data in Table 1 show that males comprise most of the population (78.6%). Females comprised

21.4% of the overall population. Most people are between 18 and 29 years old, accounting for approximately 65.9% of the population. Individuals aged 30-39 make up approximately 30.1% of the population, while those aged 40-49 make up approximately 3.9%. Individuals with a bachelor's degree made up most of the population, accounting for approximately 79.5%. Master's degree holders accounted for around 13.5%, while those with a diploma accounted for only about 7%. The demographic study revealed a population dominated by men, with a sizable proportion falling between the ages of 18 and 29 years. Furthermore, most people have a bachelor's degree, indicating a reasonably high level of educational attainment among the population. This provides information about the population's demographic features, which can be used for various objectives, such as resource allocation, policy-making, and targeted interventions.

Table 1: Demographics of respondents				
Variable	Response type	Frequency	Percent (%)	
Gender	Male	180	78.6	
Gender	Female	49	21.4	
Age	18-29	151	65.9	
	30-39	69	30.1	
	40-49	9	3.9	
	Diploma	16	7.0	
Educational level	Bachelor	182	79.5	
	Master	31	13.5	

4. Findings and results

Table 2 presents the measurement model loadings for three constructs: Pedagogical Skills, Curriculum Policy, and Quality Education. Each construct consists of multiple items (PS1-PS5, CP1-CP5, QE1-QE5), and their corresponding loadings are shown. Loadings represent the strength of the relationship between observed items and their respective latent constructs.

Table 2: Measurement model (loading)					
	Items	Loadings	Cronbach's alpha	Composite reliability	The average variance extracted (AVE)
	PS1	0.721	0.817	0.872	0.578
	PS2	0.684			
Pedagogical skills	PS3	0.816			
	PS4	0.808			
	PS5	0.763			
	CP1	0.777	0.759	0.835	0.507
	CP2	0.653			
Curriculum policy	CP3	0.838			
	CP4	0.638			
	CP5	0.627			
	QE1	0.802	0.898	0.924	0.710
	QE2	0.856			
Quality education	QE3	0.884			
	QE4	0.825			
	QE5	0.846			

For Pedagogical Skills, the loadings ranged from 0.684 to 0.816, indicating a strong relationship between the observed items and the underlying construct. In the factor analysis, higher loadings indicated that each item was a good indicator of the construct. Loadings more than 0.5 are considered acceptable, and those greater than 0.7 are considered good, according to Hair et al. (2010). This range indicates that the items are valid indicators of pedagogical skill. Cronbach's Alpha for Pedagogical 0.817, suggesting good internal Skills was consistency reliability. Cronbach's alpha measures the extent to which the items within a construct are consistent. A value above 0.7 is generally considered acceptable, and values above 0.8 are seen as excellent. This indicates that the items used to assess Pedagogical Skills were reliable and consistently measured the same construct.

Composite reliability was even higher at 0.872, indicating that the items reliably measured the construct. The average variance extracted (AVE) for Pedagogical Skills was 0.578, which surpassed the threshold of 0.5, indicating convergent validity.

Similarly, for Curriculum Policy, loadings ranged from 0.627 to 0.838, indicating a reasonably strong relationship with the construct. Cronbach's Alpha for Curriculum Policy was 0.759, indicating acceptable internal consistency. The composite reliability was 0.835, indicating good reliability. However, the AVE was 0.507, slightly below the threshold, indicating weaker convergent validity than Pedagogical Skills.

Finally, Quality Education demonstrates the highest loadings, ranging from 0.802 to 0.884, indicating a robust relationship with the construct. Cronbach's Alpha for Quality Education was high at 0.898, suggesting excellent internal consistency. Composite reliability was also high (0.924), indicating strong reliability. The AVE for Quality Education was 0.710, surpassing the threshold, indicating good convergent validity.

The measurement model indicates that the observed items effectively measured their respective constructs. However, while pedagogical skills and quality education demonstrate strong convergent validity, curriculum policy shows slightly weaker convergent validity (Fig. 2). Further refinement of the items within the curriculum policy may be beneficial for improving convergent validity. Table 3 demonstrates discriminant validity, confirming that the constructs of pedagogical skills, curriculum policy, and quality education are distinct.

The correlation matrix suggests that there are moderate to strong positive correlations among teacher pedagogical skills (TPS), curriculum policy

(CP), and quality education (QE). Starting with the relationship between TPS and CP, there appears to be a positive correlation coefficient of 0.658, indicating a moderately strong association between teachers' pedagogical skills and curriculum policy. This suggests that as teachers' pedagogical skills improve, there is a tendency for curriculum policies to be better aligned or implemented more effectively. Similarly, the correlation between TPS and QE was stronger, with a coefficient of 0.778. This suggests a robust positive relationship between teachers' pedagogical skills and quality of education. This implies that there is a corresponding enhancement in the quality of education provided. Furthermore, the correlation coefficient between CP and QE was 0.701, indicating a positive correlation between curriculum policy and quality of education. This suggests that when curriculum policies are well-defined and effectively implemented, there tends to be an improvement in the quality of education. Based on the correlation analysis, it can be interpreted that there are positive associations between teachers' pedagogical skills, curriculum policy, and quality education. Improving teachers' pedagogical skills and implementing effective curriculum policies are likely to enhance the quality of education. As shown in Table 4, the HTMT values are all below the threshold of 0.85, indicating good discriminant validity among the constructs.

The heterotrait-monotrait ratio (HTMT) assesses discriminant validity in structural equation modeling. It compares the correlations between constructs to determine whether constructs are more strongly correlated with their own measures (monotrait) than with other measures (heterotrait). Ideally, discriminant validity is established when HTMT values are lower than a certain threshold (usually 0.85). All these values were below the threshold of 0.85, indicating that discriminant validity was supported among the constructs. This means that the constructs of Pedagogical Skills (PS), Curriculum Policy, and Quality Education are distinct from each other as their correlations with each other are lower than their correlations with themselves. In other words, constructs measure different underlying concepts and are not simply different manifestations of the same underlying construct. This suggests that the measures used for each construct are valid and capture the unique aspects of the phenomena they represent.



Fig. 2: Relationship between pedagogical skills, policy, and education quality

	Table 3: Discriminant validity				
	TPS	CP	QE		
TPS					
CP	0.658				
QE	0.778	0.701			
Tal	Table 4: Heteotrait monotrait ratio (HTMT)				
	PS	СР	QE		
PS	0.760				
CP	0.529	0.712			

The path analysis conducted in Table 5 presents the results of hypothesis testing regarding the relationships between pedagogy skills and quality education, as well as curriculum policy and quality education. The beta values, T-values, and corresponding P-values were analyzed to assess the significance of these relationships. The first hypothesis (H₁), which posited a relationship between pedagogy skills and quality education, yielded a beta value of 0.4907 with a T-value of 0.3274, resulting in a significant P-value of 6.4675 (p < 0.001). This finding supports the hypothesis that there is a positive and substantial relationship between pedagogical skills and quality of education. Therefore, H₁ was accepted, suggesting that higher levels of pedagogical skills are associated with better quality education outcomes. Similarly, the second hypothesis (H₂) examined the relationship between curriculum policy and quality education. The beta

value for this path was 0.3503, with a T-value of 0.2123, leading to a significant P-value of 4.7334 (p < 0.001). This result also supports the hypothesis that there is a positive and significant relationship between curriculum policy and the quality of education. Thus, H_2 is accepted, suggesting that effective curriculum policies enhance educational quality.

Table 5: Results of pat	th analysis/sumr	mary of hypothesis testing
-------------------------	------------------	----------------------------

Hypothesis	Path	Relation	Beta	T-value	P-value	Decision
H ₁	PS -> QE	0.490695818	0.327418	6.4675	0.000	Accepted
H ₂	CP -> QE	0.350267168	0.212253	4.7334	0.000	Accepted

Therefore, the analysis demonstrates that pedagogical skills and curriculum policies significantly impact the quality of education. These findings underscore the importance of investing in teacher training and development programs to improve pedagogical skills and formulate and implement robust curriculum policies to ensure high-quality educational outcomes (Fig. 3).



Fig. 3: Path analysis of pedagogical skills, curriculum policy, and education quality

5. Discussions

The impact of pedagogical and curriculum policy implementation on quality education is multifaceted and crucial for improving educational outcomes. Pedagogy, which refers to the methods and practices of teaching, plays a fundamental role in shaping students' learning experiences and academic achievements. Similarly, the curriculum policy, which encompasses the design, delivery, and assessment of educational content, sets a framework for what is taught and learned in schools. Therefore, implementing pedagogical and curriculum policies effectively contributes to the provision of quality education.

Pedagogical approaches that are research-based, learner-centered, and adaptive to diverse student needs can significantly enhance teaching and learning experiences. By employing effective instructional strategies such as active learning, cooperative learning, and differentiated instruction, teachers can create engaging and inclusive classroom environments conducive to student growth and development. Thus, a strong emphasis on pedagogical excellence can improve student achievement. When teachers have the necessary skills and knowledge to deliver high-quality instruction, students are more likely to master key concepts, develop critical thinking skills, and achieve academic success in various subject areas.

Curriculum policies guide educational institutions to align their instructional practices with intended learning objectives and standards. Curriculum policies help maintain academic rigor and relevance of quality education outcomes by ensuring coherence and consistency in what is taught and assessed. Effective curriculum policies and pedagogical approaches address equity issues by focusing on the diverse learning needs of all students. By adopting inclusive practices and accommodating different learning styles, educational institutions can create equitable learning opportunities that enable students to reach their full potential regardless of their background or abilities.

A well-designed curriculum and innovative pedagogical practices equip students with the knowledge, skills, and competencies required to thrive in an ever-changing world. By integrating 21st-century skills such as critical thinking, creativity, communication, and collaboration into the curriculum, educational systems can prepare students to tackle complex challenges and adapt to emerging trends in the global economy.

Regular evaluation and refinement of pedagogical approaches and curriculum policies are essential for the continuous improvement of educational quality. Policymakers and educators can make informed decisions to optimize teaching and learning processes and enhance overall educational effectiveness by collecting and analyzing student performance data, stakeholder feedback, and emerging educational research. In addition, the implementation of pedagogical strategies and curriculum policies is indispensable for ensuring quality education. By prioritizing pedagogical excellence, aligning instructional practices with learning objectives, promoting equity and access, fostering 21st-century skills, and embracing a culture of continuous improvement, education systems can empower students to succeed academically, thrive in diverse contexts, and become lifelong learners prepared to meaningfully contribute to society.

6. Conclusion

Implementing pedagogical and curriculum policies significantly influences the quality of education, shaping classroom teaching and learning practices and contributing to improved educational Effective implementation outcomes. ensures alignment with broader educational goals and fosters critical thinking, creativity, and problemsolving skills among students. Policies should address issues of equity and inclusion to ensure that all students have access to quality education, thereby reducing disparities in educational attainment. Investment in teachers' professional development is necessary for successful implementation and robust assessment and evaluation practices to monitor progress and ensure accountability. Collaboration among stakeholders is essential, fostering buy-in, transparency, and exchange of ideas. Flexible implementation strategies that accommodate evolving educational needs and challenges are crucial to fostering quality education. Effective policy implementation can enhance teaching practices, promote equity and inclusion, support teacher development, and contribute to positive educational outcomes for all students, thus requiring concerted

efforts from policymakers, educators, and stakeholders.

7. Recommendation

Collaboration among policymakers, educators, and stakeholders is crucial to ensure the effective implementation of pedagogical and curriculum policies to deliver high-quality education to all children. This collaborative effort extends from policy formation to its practical implementation within educational institutions. Recommendations based on the research findings include emphasizing professional development for educators to comprehend and implement desired pedagogical approaches and curriculum frameworks. establishing regular monitoring and evaluation processes to assess implementation success, identifying areas for improvement, and fostering an innovative and adaptable culture within educational settings. Incorporating these recommendations into policy implementation strategies can help ensure that every student receives the education that they deserve.

- Evidence-Based Policy Design: This guarantees that pedagogical and curriculum policies are founded on research and evidence-based practices by emphasizing policies that have been shown to improve student outcomes and promote quality education.
- Continuous Professional Development: Investment in ongoing professional development opportunities for teachers will improve their pedagogical abilities and knowledge with new curriculum frameworks by providing resources and support to keep teachers up to date on best practices and creative teaching approaches.
- Customized Support for Schools: Recognizing schools' diverse needs and contexts allows customized support to facilitate effective policy implementation by tailoring professional development, resources, and assistance to address specific challenges and opportunities for different schools and communities.
- Equity-Centered Approach: Equity and inclusion must be prioritized in policy implementation initiatives to address disparities in educational access and outcomes effectively. This allows for the deliberate allocation of resources to marginalized students and communities. This proactive approach ensured that policies were established and implemented to promote equal opportunities for all students. As a result, creating an atmosphere in which every child has access to a great education becomes a measurable reality.
- Stakeholder Collaboration: Collaboration among stakeholders is essential for effective policy implementation. This collaborative approach involves educators, administrators, lawmakers, parents, and community members in decisionmaking processes. By consulting stakeholders with diverse backgrounds and experiences, policies can

reflect the interests and priorities of all the parties involved. Soliciting input and feedback throughout the policy creation process increases transparency and trust, leading to greater ownership of implementation efforts and collaboration towards shared objectives when stakeholders feel that their perspectives are respected and valued.

- Flexible Implementation Strategies: Flexible implementation strategies are crucial for effective educational policy design, allowing adaptation to diverse educational contexts and evolving requirements. Recognizing the unique challenges and strengths of different educational environments enables policymakers to adjust legislation to address the specific needs of students, educators, and communities. This flexibility empowers schools and districts to customize implementation tactics, increasing the Moreover, likelihood of success. fostering experimentation and innovation in implementation tactics is essential to continuous improvement. By enabling educators and administrators to explore new approaches and strategies, regulations can evolve in response to emerging best practices and changing educational needs, thereby ensuring ongoing effectiveness and relevance.
- Evaluation and Continuous Improvement: Continuous evaluation and improvement are essential for effective policy implementation in education. By consistently monitoring results and gathering feedback from stakeholders, policymakers can gain valuable insights into the effectiveness of their programs. Data-driven techniques enable the identification of areas for refinement and adjustment, thereby ensuring that policies remain responsive to the evolving needs of students and communities. Moreover, utilizing data for decision-making allows for evidencebased changes that optimize the effectiveness of programs promoting quality education. Officials can make informed decisions regarding resource allocation and policy effectiveness by assessing quantitative data and qualitative feedback. This iterative process of evaluation and adjustment ensures that policies remain dynamic and ultimately adaptable, leading to improved educational outcomes for children.

Acknowledgment

We thank SIMAD University for supporting this research. We appreciate its generous contribution in enabling us to perform this important task.

Compliance with ethical standards

Ethical considerations

This study adhered to ethical guidelines. Informed consent was obtained from participants, ensuring confidentiality and voluntary participation.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

- Alsubaie MA (2020). Curriculum development: Teacher involvement in curriculum development. Journal of Education and Practice, 7(9): 106–107.
- Chidubem Precious E and Adewunmi Feyisetan AV (2020). Influence of teacher-centered and student-centered teaching methods on the academic achievement of post-basic students in biology in Delta State, Nigeria. Teacher Education and Curriculum Studies, 5(3): 120-124. https://doi.org/10.11648/j.tecs.20200503.21
- Considine J, Botti M, and Thomas S (2005). Design, format, validity and reliability of multiple choice questions for use in nursing research and education. Collegian, 12(1): 19-24. https://doi.org/10.1016/S1322-7696(08)60478-3 PMid:16619900
- Csapó B and Funke J (2017). The nature of problem solving: Using research to inspire 21st century learning. OECD Publishing, Paris, France. https://doi.org/10.1787/9789264273955-en
- Dieude A and Prøitz TS (2024). School leaders' autonomy in public and private school contexts: Blurring policy requirements. Nordic Studies in Education, 44(1): 1-23. https://doi.org/10.23865/nse.v44.5762
- Gabriele L, Bertacchini F, Tavernise A, Vaca-Cárdenas L, Pantano P and Bilotta E (2019). Lesson planning using computational thinking skills among Italian pre-service teachers. Informatics in Education, 18(1): 69–104. https://doi.org/10.15388/infedu.2019.04
- Grimus M (2020). Emerging technologies: Impacting learning, pedagogy and curriculum development. In: Yu S, Ally M, and Tsinakos A (Eds.), Emerging technologies and pedagogies in the curriculum: 127-151. Springer, Singapore, Singapore. https://doi.org/10.1007/978-981-15-0618-5_8
- Hair Jr JF, Black WC, Babin BJ, and Anderson RE (2010). Multivariate data analysis. Pearson, Harlow, UK.
- Handayani ND, Mantra IBN and Suwandi IN (2019). Integrating collaborative learning in cyclic learning sessions to promote students' reading comprehension and critical thinking. International Research Journal of Management, IT and Social Sciences, 6(5): 303–308. https://doi.org/10.21744/irjmis.v6n5.777
- Haque A and David SA (2022). Effective curriculum implementation for optimal teaching and learning experience: A study from a private school in Dubai. International Journal of Curriculum and Instruction, 15(1): 1–18.
- Hume A and Coll R (2010). Authentic student inquiry: The mismatch between the intended curriculum and student-experienced curriculum. Research in Science and Technological Education, 28(1): 43–62. https://doi.org/10.1080/02635140903513565
- Jing N and Abu BB (2022). Research on the design of pedagogy curriculum teaching plan based on nonlinear analysis. Journal of Positive School Psychology, 6(8): 3614–3622.
- Khidzir KAM, Ismail NZ, and Abdullah AR (2018). Validity and reliability of the instrument for measuring social functioning using Cronbach's alpha. International Journal of Development and Sustainability, 7(3): 1026–1037.
- Lambert K and Penney D (2020). Curriculum interpretation and policy enactment in health and physical education: Research on teacher educators as policy actors. Sport, Education and Society, 25(4): 378–394. https://doi.org/10.1080/13573322.2019.1613636

- Li CC, Aldosari MA, and Park SE (2021). Understanding pedagogical approaches on student learning styles. Annals of Dentistry and Oral Health, 4(1): 1039-1045.
- Martinez C (2022). Developing 21st century teaching skills: A case study of teaching and learning through project-based curriculum. Cogent Education, 9(1): 2024936. https://doi.org/10.1080/2331186X.2021.2024936
- Melese S and Tadege A (2019). The Ethiopian curriculum development and implementation vis-à-vis Schwab's signs of crisis in the field of curriculum. Cogent Education, 6(1): 1633147. https://doi.org/10.1080/2331186X.2019.1633147
- Melesse S and Gulie K (2019). The implementation of teachers' continuous professional development and its impact on educational quality: Primary schools in Fagita Lekoma Woreda, Awi Zone, Amhara Region, Ethiopia in focus. Research in Pedagogy, 9(1): 81-94. https://doi.org/10.17810/2015.93
- Musthofa MD and Agus AH (2022). The implementation of an independent curriculum in improving the quality of madrasah education. International Journal for Studies on Children, Women, Elderly and Disabled, 17: 187-192. https://doi.org/10.3390/educsci11020066
- Nakidien T, Singh M, and Sayed Y (2021). Teachers and teacher education: Limitations and possibilities of attaining SDG 4 in South Africa. Education Sciences, 11(2): 66.
- Oshagbemi T (2003). Research design and methodology. In: Oshagbemi T (Eds.), Leadership and management in universities: 67-95. De Gruyter, Berlin, Germany.
- Podolsky A, Kini T, Darling-Hammond L, and Bishop J (2019). Strategies for attracting and retaining educators: What does the evidence say? Education Policy Analysis Archives, 27: 38-38. https://doi.org/10.14507/epaa.27.3722

- Roehrig GH, Kruse RA, and Kern A (2007). Teacher and school characteristics and their influence on curriculum implementation. Journal of Research in Science Teaching, 44(7): 883–907. https://doi.org/10.1002/tea.20180
- Tan C and Huet I (2021). Design of an active learning strategy to promote collaborative and research-based learning in project management education. International Journal of Innovation and Learning, 30(1): 19–47. https://doi.org/10.1504/IJIL.2021.116566
- Umami I (2018). The moderating influence of curriculum, pedagogy, and assessment practices on learning outcomes in Indonesian secondary education. Journal of Social Studies Education Research, 9(1): 60–75.
- Unda-López A, Osejo-Taco G, Vinueza-Cabezas A, Paz C, and Hidalgo-Andrade P (2022). Procrastination during the COVID-19 Pandemic: A scoping review. Behavioral Sciences, 12(2): 150–155. https://doi.org/10.3390/bs12020038

PMid:35200289 PMCid:PMC8868816

- Wanjiru J (2021). School leadership and post-conflict education: How can their roles in developing inclusive practices in postconflict schooling be understood and conceptualized? Educational Management Administration and Leadership, 49(1): 145–163. https://doi.org/10.1177/1741143219884693
- Wininger SR, Redifer JL, Norman AD, and Ryle MK (2019). Prevalence of learning styles in educational psychology and introduction to education textbooks: A content analysis. Psychology Learning and Teaching, 18(3): 221–243. https://doi.org/10.1177/1475725719830301