

THE ROLE OF TEACHERS IN CURRICULUM IMPLEMENTATION IN NIGERIA: ISSUES, CHALLENGES AND WAY FORWARD

Babangida Yaki, PhD

babangidayaki1970@gmail.com

Department of Curriculum and Educational Technology,
Federal University of Education, Kontagora

DOI: <https://doi.org/10.5281/zenodo.21926174>

Abstract

The role of the teacher in curriculum implementation is pivotal to the realization of educational goals and the translation of policy intentions into meaningful classroom practices. This paper critically examines the multifaceted roles of teachers in curriculum enactment, exploring the challenges that impede effective implementation and proposing strategic pathways to strengthen teacher capacity and support systems. Drawing on both theoretical frameworks, including constructivist learning theory, curriculum implementation theory, and teacher professional competency theory and empirical evidence from Nigerian and international contexts, the study highlights teachers' functions as curriculum interpreters, instructional designers, facilitators of learning, assessors, reflective practitioners, and agents of educational change. Despite their centrality, teachers face a range of challenges, including inadequate pre-service preparation, limited professional development, large class sizes, resource scarcity, policy instability, weak institutional support, low motivation, linguistic and cultural barriers, and digital literacy deficits. Addressing these challenges requires holistic interventions, including the reform of pre-service teacher education, institutionalized continuous professional development, strong instructional leadership, improved welfare and motivation, access to teaching resources, participatory policy processes, and the integration of ICT in pedagogy. The paper concludes that empowering teachers through targeted capacity building and systemic support is essential for enhancing curriculum fidelity, promoting learner-centred pedagogies, and achieving sustainable educational reform. By positioning teachers as co-creators of knowledge and change agents, educational systems can bridge the gap between curriculum policy and classroom practice, ultimately improving learning outcomes and contributing to quality education.

Keywords: Teacher role, Curriculum implementation, Educational challenges, Teacher capacity, Professional development, ICT

Introduction

Curriculum implementation represents the critical phase of the educational process where officially designed curriculum documents are translated into actual classroom practice. While curriculum planners, policymakers, and educational administrators contribute significantly to curriculum design and reform, it is ultimately the teacher who determines whether curriculum objectives are meaningfully realized in schools. Fullan (2020) and UNESCO (2022) have consistently emphasized that no matter how well a curriculum is structured; its success depends largely on the competence, commitment, and pedagogical expertise of teachers. In contemporary educational discourse, the teacher is increasingly viewed not merely as a transmitter of prescribed content but as a reflective practitioner, instructional designer, facilitator of learning, curriculum interpreter, and agent of change. (Ezeani, 2021). The Organisation for Economic Co-operation and Development (OECD, 2023) affirms that

teachers are central to improving learning outcomes and ensuring equitable education systems. Similarly, the World Bank (2022) stressed that addressing learning poverty globally requires strengthening teacher quality and instructional delivery. Within the Nigerian context, the Federal Ministry of Education (2021) identifies teachers as the primary drivers of curriculum reforms, particularly in competency-based and learner-centred framework thus, understanding the role of the teacher in curriculum implementation requires both conceptual and theoretical grounding, as well as empirical validation from local and global research.

Conceptual Framework

Teacher

The term teacher has been conceptualized in multiple ways across educational research, policy, and practice. Traditionally, a teacher is defined operationally as a professional responsible for delivering instruction, managing the classroom, and assessing student learning (Federal Ministry of Education, 2021). This definition emphasizes functional responsibilities: content delivery, lesson planning, classroom management, and learner evaluation. While useful for administrative purposes, this view is limited because it does not capture the reflective, adaptive, and interpretive dimensions of teaching (Fullan, 2020). Modern conceptualizations of teachers extend beyond procedural tasks. Nwachukwu (2023) argues that teachers are curriculum researchers who interpret and adapt curriculum materials to suit the cognitive, social, and cultural needs of learners. From this perspective, teachers are active agents who experiment with instructional approaches, reflect on outcomes, and adjust methods based on classroom realities. (Le Cornu & Peters, 2005). Constructivist learning theory reinforces this view, emphasizing that teachers facilitate knowledge construction rather than merely transmit information (Piaget, 1972; Vygotsky, 1978). Teachers create learning environments that promote inquiry, collaboration, and critical thinking, allowing learners to actively construct understanding. In the Nigerian context, Adeyemi and Adeyinka (2021) describe teachers as professional mediators between curriculum and learners. They highlight that Nigerian teachers operate in complex environments characterized by linguistic diversity, cultural heterogeneity, and resource constraints. Teachers' roles thus require both subject-matter expertise and professional judgment to ensure curriculum objectives are meaningfully delivered.

Curriculum Implementation

Curriculum implementation refers to the process of translating written curriculum plans and objectives into practical classroom instruction and learning experiences. (Ornstein & Hunkins, 2022; Tanner & Tanner, 2007). Tyler (1949) defines it as the process of designing learning experiences that align with curriculum objectives and evaluating their effectiveness. This view focuses on alignment between goals, instruction, and assessment, treating implementation as a systematic, procedural activity. While foundational, this model is often critiqued for its linearity and insufficient consideration of contextual and teacher-mediated adaptations (Ornstein & Hunkins, 2022). Stenhouse (1975) proposed a process-oriented conceptualization, emphasizing the interpretive and adaptive role of teachers. In his view, curriculum implementation is dynamic: teachers act as researchers who experiment, evaluate, and refine instructional strategies based on classroom realities. This aligns with constructivist perspectives, where curriculum enactment involves active engagement, scaffolding, and collaborative knowledge construction (Piaget, 1972; Vygotsky, 1978).

Modern educational frameworks extend curriculum implementation to include systemic and contextual considerations. Fullan (2020) stresses that implementation is influenced by leadership, professional development, institutional support, and teacher agency. Similarly, UNESCO (2023) emphasizes that successful implementation requires coherence between policy directives, teacher capacity, school leadership, and community involvement. In practice, curriculum implementation encompasses translating curriculum objectives into lesson plans and teaching strategies, adapting instruction to learners' cognitive, social, and cultural needs, designing formative and summative assessments to align with curriculum goals and reflecting on instructional outcomes to refine teaching strategies (Darling-Hammond, 2021; Yusuf & Abubakar, 2023). Curriculum implementation is a dynamic, teacher-mediated process of operationalizing planned curriculum objectives through pedagogically sound instruction, assessment, contextual adaptation, and reflective practice to achieve intended learning outcomes (Stenhouse, 1975; Fullan, 2020; UNESCO, 2022).

Theoretical Framework

Understanding the role of the teacher in curriculum implementation requires grounding in robust theoretical perspectives that explain how curriculum is conceptualized, enacted, and transformed within educational settings. Ornstein and Hunkins (2022) submitted that curriculum implementation is not a mechanical act of delivering content; rather, it is a complex socio-pedagogical process shaped by teacher cognition, institutional structures, policy contexts, and learner dynamics. This study is anchored on two major theoretical perspectives: Constructivist Learning Theory and Teacher Professional Competency Theory.

Constructivist Learning Theory (Piaget & Vygotsky)

Constructivist theory provides a psychological foundation for understanding the teacher's role in curriculum implementation. Piaget (1972) posited that learners actively construct knowledge through cognitive interaction with their environment. Santrock (2021) posited that learning occurs through processes of assimilation and accommodation. Within this framework, teachers must design learning experiences that stimulate inquiry, discovery, and problem-solving rather than rote memorization. Vygotsky (1978), on the other hand, emphasized the social dimension of learning. His concept of the Zone of Proximal Development (ZPD) highlights the importance of teacher scaffolding in facilitating higher-order thinking. Teachers mediate learning through guided participation, dialogue, and collaborative tasks.

Constructivist theory positions teachers as facilitators of inquiry, designers of experiential learning, scaffolding agents and Promoters of collaborative knowledge construction. In competency-based curricula, constructivist approaches are essential for developing critical thinking and problem-solving skills (OECD, 2023). UNESCO (2022) further emphasizes learner-centred pedagogy as a key strategy for achieving quality education globally. Within Nigerian curriculum *reforms*, constructivist approaches are embedded in policy frameworks; however, implementation challenges often arise due to inadequate teacher training (Ibrahim & Lawal, 2023). Thus, constructivism reinforces the need for teacher capacity development.

Teacher Professional Competency Theory

Teacher Professional Competency Theory emphasizes that curriculum implementation effectiveness depends on teachers' knowledge, skills, dispositions, and professional values. Darling-Hammond *et al.* (2021) identify core teacher competencies as subject matter knowledge, pedagogical content knowledge, assessment literacy, classroom management skills, technological proficiency and reflective practice. Similarly, UNESCO (2022) identifies teacher capacity as the strongest school-level determinant of student achievement. The World

Bank (2022) links learning poverty to deficiencies in teacher quality and instructional practice.

Professional competency theory integrates well with both constructivist and change theories. Without adequate competence, teachers cannot interpret, adapt, or implement curriculum reforms effectively. In Nigeria, empirical studies demonstrate that teacher qualification and professional development significantly influence curriculum delivery outcomes (Adeyemi & Adeyinka, 2021; Okeke & Ibeneme, 2022).

Empirical Review

Empirical investigations into curriculum implementation consistently affirm that teachers are the central determinants of reform success. While curriculum policies may be well-articulated at national or institutional levels, the translation of these policies into meaningful classroom practice depends fundamentally on teacher quality, preparedness, professional development, and contextual conditions. The following review synthesizes recent empirical studies from Nigeria and the international community to illuminate the teacher's role in curriculum implementation.

Teacher Professional Development and Curriculum Implementation

One of the most extensively researched determinants of curriculum implementation effectiveness is teacher professional development. Empirical evidence indicates that continuous professional learning enhances teacher capacity to interpret curriculum objectives and implement instructional innovations. In a Nigerian study, Adeyemi and Adeyinka (2021) investigated the relationship between teacher professional development and curriculum delivery effectiveness in public secondary schools. Using a correlational design, they found a statistically significant positive relationship between teachers' participation in professional development programs and successful curriculum implementation. Schools where teachers attended regular training workshops recorded higher instructional alignment with national curriculum standards. Similarly, Okafor and Chukwu (2023) examined the effect of in-service training on competency-based curriculum implementation in Southeast Nigeria. Their findings revealed that teachers who participated in structured pedagogical retraining demonstrated improved lesson planning, learner engagement strategies, and formative assessment practices.

At the international level, Darling-Hammond *et al.* (2021) conducted a comprehensive review of teacher professional development programs across multiple countries. Their study concluded that sustained, collaborative, and content-focused professional development significantly improves instructional quality and curriculum fidelity. Short-term workshops without follow-up support were found to be largely ineffective. UNESCO (2022) further reported that countries with structured teacher capacity-building systems demonstrated stronger curriculum reform outcomes. The report emphasized that teacher learning must be continuous, practice-based, and embedded in school contexts. Collectively, these studies demonstrate that teacher professional development is not supplementary but central to effective curriculum implementation.

Teacher Qualification and Curriculum Delivery

Teacher qualification has also been empirically linked to curriculum implementation outcomes. Qualified teachers are more likely to understand pedagogical principles and adapt instructional strategies to learner needs. Okeke and Ibeneme (2022) examined the impact of teacher academic qualification and years of experience on curriculum delivery effectiveness in Nigerian secondary schools. Their study found that professionally trained teachers with education degrees were more likely to align teaching methods with curriculum objectives than unqualified or underqualified teachers. Similarly, Ibrahim and Lawal (2023) studied teachers' pedagogical readiness for implementing competency-based curricula in Northern Nigeria. Their findings revealed that teachers with formal pedagogical training demonstrated greater adaptability and learner-centred instructional practices.

Globally, the Organisation for Economic Co-operation and Development (OECD, 2023) found that teacher qualification and subject specialization significantly influence students' learning outcomes across member countries. The report linked teacher expertise to improved curriculum alignment and instructional coherence. The World Bank (2022) also identified teacher qualification as a major factor in addressing global learning poverty. Countries with stronger teacher preparation systems recorded higher curriculum implementation consistency. These empirical findings reinforce the argument that teacher qualification and training quality are fundamental to curriculum success.

ICT Integration and Curriculum Innovation

In the digital era, ICT competence has become an important dimension of curriculum implementation. Yusuf and Abubakar (2023) found that ICT training significantly improved curriculum delivery in Nigerian secondary schools. Teachers who possessed digital literacy skills were better able to integrate multimedia resources and facilitate interactive learning. OECD (2023) similarly reported that teacher technological competence enhances curriculum innovation and student engagement. However, UNESCO (2023) noted disparities in ICT access between urban and rural schools, which create inequities in curriculum implementation quality. These studies underscore the importance of digital capacity-building for teachers.

The Role of the Teacher in Curriculum Implementation

Curriculum implementation represents the phase of educational practice where written curricula documents are translated into real classroom experiences. While policymakers and curriculum planners articulate intended goals, content, and assessment frameworks, the teacher ultimately serves as the primary agent through which these plans are enacted (Fullan, 2020; UNESCO, 2023). In this sense, curriculum implementation is inherently teacher-mediated; teachers interpret, adapt, and operationalize curriculum intentions, making pedagogical decisions that shape learners' experiences. The following discussion unpacks the multifaceted role of the teacher in curriculum implementation, drawing on theoretical constructs and empirical evidence, with specific attention to challenges, contextual adaptations, and implications for educational quality.

Teachers as Curriculum Interpreters

Curriculum documents typically articulate broad goals, essential content areas, and assessment expectations, but they rarely prescribe exact methods for instruction (Tyler, 1949). Teachers must therefore interpret curriculum intentions and translate them into context-appropriate learning activities. For instance, UNESCO's (2022) analysis of curriculum reforms in developing contexts highlights that teachers often must tailor global or national curriculum frameworks to local linguistic, cultural, and community realities. In the

Nigerian context, where classrooms are linguistically and culturally diverse, teachers frequently adjust lesson content and examples to align with students' lived experiences (Okeke & Ibeneme, 2022). This interpretive role requires deep content knowledge, pedagogical skill, and contextual understanding.

Empirical studies corroborate the centrality of interpretation. Ogegbo, (2024) reported that Nigerian teachers who demonstrated strong interpretive capabilities were better able to integrate ICT tools into instruction, even when formal guidance was limited. These teachers devised locally relevant digital resources that aligned with curriculum goals, illustrating how interpretive skill enhances implementation quality.

Teachers as Instructional Designers

Once curriculum intentions are interpreted, teachers must design instruction that reflects those intentions. Instructional design involves decisions about pacing, sequence, selection of learning materials, and differentiation based on student needs. Darling-Hammond *et al.* (2021) emphasized that effective instructional design requires alignment among objectives, learning activities, and assessments. Teachers must ensure that each classroom activity meaningfully contributes to curriculum goals. For example, a science teacher implementing a competency-based curriculum might sequence inquiry tasks, experiments, and formative assessments in a way that progressively builds conceptual understanding.

In Nigeria, Adeyemi and Adeyinka (2021) reported that teachers with stronger instructional design skills particularly those who participated in professional development were more likely to employ varied strategies for example, group work, hands-on tasks) conducive to deeper learning. This finding aligns with global research showing that teachers who plan coherently and intentionally achieve better curriculum fidelity and student outcomes (OECD, 2023).

Teachers as Facilitators of Learning

The role of the teacher has shifted in many contemporary curricula from knowledge transmitter to learning facilitator. Constructivist theorists such as Piaget (1972) and Vygotsky (1978) argued that learners construct knowledge actively, with teachers guiding and scaffolding that process. Within this paradigm, teachers create opportunities for learners to engage in inquiry, collaboration, problem-solving, and reflection. In practice, this means that teachers must be adept at structuring classroom interactions that promote active engagement rather than passive reception. Eze and Nwankwo (2024) observed that Nigerian teachers who adopted learner-centred strategies reported improvements in student participation and conceptual mastery. Teachers facilitated small-group discussions, project-based tasks, and peer assessments, aligning pedagogical practice with curriculum expectations for student autonomy and competency development. This facilitative role is not automatic; it demands professional support. UNESCO (2022) emphasized that teachers require training in learner-centred pedagogies to enact such strategies effectively. Without such training, teachers may resort to familiar lecture-based methods that constrain meaningful curriculum enactment.

Teachers as Assessors and Evaluators

Assessment is a critical aspect of curriculum implementation. Teachers are responsible not only for measuring students learning, but for using assessment data to refine instruction and provide feedback that guides learner progress. Tyler's (1949) curricular model placed evaluation at the final stage of implementation, but contemporary perspectives view assessment as an ongoing and integrated process. Teachers must design formative and summative assessments aligned with curriculum goals, interpret assessment results, and adjust instruction accordingly.

Okafor and Chukwu (2023) discovered that Nigerian teachers who demonstrated high assessment literacy including designing rubrics, interpreting evidence of learning, and providing constructive feedback were more effective in implementing competency-based curriculum elements. Conversely, teachers with limited assessment skills often struggled to determine whether students were meeting intended outcomes, leading to weaker instructional decisions. Globally, research also affirms that assessment competence is a robust predictor of curriculum success. OECD (2023) reported that teacher assessment literacy significantly correlates with improved learner outcomes and stronger implementation fidelity.

Teachers as Change Agents

Teachers do not merely enact curriculum policies; they shape reforms. Fullan (2020) argued that sustainable educational change depends on professional agency, collective capacity, and shared responsibility among teachers. In contexts where teachers are included in curriculum review and reform processes, implementation outcomes are generally stronger. Okafor and Chukwu (2023) found that Nigerian teachers who participated in localized curriculum review workshops demonstrated higher commitment to subsequent implementation. Their engagement in design processes fostered a sense of ownership and responsibility. UNESCO (2022) similarly points out that top-down reforms often falter when teachers feel marginalized. Genuine teacher engagement in reform dialogues enhances motivation, professional identity, and instructional innovation.

Teachers and Technology in Curriculum Implementation

The integration of technology in curriculum implementation has accelerated globally. Teachers now play a dual role: mediators of content and facilitators of digital literacy. Yusuf and Abubakar (2023) affirmed that teachers with strong digital competence in Nigerian secondary schools were more effective at integrating multimedia content, online resources, and interactive tools into learning activities. Such integration supports learner engagement and aligns with curricular emphases on 21st-century skills. However, access disparities remain a challenge. Rural schools often lack reliable infrastructure, leaving teachers unable to fully incorporate digital innovations (World Bank, 2022). These structural limitations highlight that teacher roles in implementation are mediated by systemic conditions.

Teachers and Classroom Management

Effective curriculum implementation also relies on classroom management. Teachers must establish environments that support learning activities, encourage participation, and minimize disruptions. Adeyemi and Adeyinka (2021) observed that Nigerian teachers who employed positive classroom management strategies reported higher implementation fidelity, particularly when using student-centred approaches. Classroom routines, time management, and behaviour expectations interact with instructional goals to shape whether curriculum activities can be actualized. OECD (2023) similarly notes that classroom management is a core component of instructional quality, linked to stronger curriculum outcomes.

The literature reviewed affirms that teachers are central to curriculum implementation. They interpret policy, design instruction, facilitate learning, assess outcomes, reflect on practice, and act as change agents. (Adeyemi & Adeyinka, 2021, Eze & Nwanko, 2024, Okafor & Chukwu, 2023, Yusuf & Abubakar, 2023) Their effectiveness is shaped by professional competence, attitudes, contextual factors, and systemic support. Challenges such as inadequate professional development, resource scarcity, and policy incoherence constrain implementation quality.

For educational systems particularly in Nigeria to achieve sustained curriculum reform success, teacher capacity must be prioritized through continuous professional learning, participatory reform processes, and structural investment in resources and support systems.

Issues and Challenges Affecting the Role of the Teacher in Curriculum Implementation

Curriculum implementation is a complex, multifaceted process. While teachers are central to translating curriculum policies into meaningful learning experiences, a wide range of interrelated issues and challenges constrain their effectiveness (Fullan, 2020; UNESCO, 2023). These challenges span structural, professional, contextual, and policy domains. This discussion critically examines key impediments to teachers' roles in curriculum implementation, situating each challenge within empirical research, theoretical perspectives, and contextual dynamics particularly within Nigeria but also in comparative global contexts.

Inadequate Pre-Service Teacher Preparation

A foundational challenge is the inadequacy of pre-service teacher education programs. Effective curriculum implementation requires teachers who understand not just content knowledge but also pedagogical design, learner diversity, assessment literacy, and reflective practice (Darling-Hammond *et al.*, 2021). However, teacher education programmes in many developing contexts remain traditionally oriented, with limited emphasis on curriculum theory and instructional innovation. In Nigeria, multiple studies reveal that pre-service teacher preparation often fails to equip graduates with the skills required for contemporary curriculum demands. Ibrahim and Lawal (2023) found that many newly qualified teachers struggled with learner-centred pedagogies and competency-based approaches, despite policy prescriptions advocating such methods. Similarly, Okeke and Ibeneme (2022) reported that teacher' internship experiences were frequently superficial, focusing on classroom attendance rather than structured reflection and pedagogical skill development.

Insufficient Professional Development and Ongoing Support

Even well-prepared teachers require continuous learning opportunities, given the changing nature of curriculum reforms and pedagogical demands. Professional development should be sustained, collaborative, and aligned with actual classroom practice (Darling-Hammond *et al.*, 2021). Unfortunately, many professional development programs are fragmented, episodic, and disconnected from teachers' real challenges. Adeyemi and Adeyinka (2021) found that Nigerian teachers reported limited access to quality in-service training. Most professional development took the form of one-off workshops that lacked follow-up support or opportunities for practice and reflection. As a result, teachers reported difficulty transferring workshop learning into classroom practice.

This finding aligns with international evidence. UNESCO (2022) noted that professional development in many low and middle-income countries is often poorly resourced and lacks relevance to actual curriculum demands. Further, Fullan (2020) emphasizes that professional development detached from collaborative inquiry and school contexts has minimal impact on practice. Teachers, therefore, become implementers of outdated methods rather than "agents of change" capable of translating curriculum goals into effective instruction. A related issue is the absence of structured mentoring and coaching. Okafor and Chukwu (2023) highlight that Nigerian schools rarely provide mentoring systems for novice teachers, meaning that new educators must navigate curriculum implementation alone. Without experienced mentors, teachers are left to improvise, often reverting to traditional didactic approaches incompatible with contemporary learner-centred curricula.

Large Class Sizes and Workload Pressures

Large class sizes significantly impair teachers' ability to implement curriculum effectively. When teachers are responsible for 40, 50, or even 70 students per class—a common scenario in Nigerian urban schools (Aina, 2021)—individualized instruction, formative feedback, and active learning methods become logistically difficult. Aina (2021) reported that teachers faced overwhelming administrative and instructional burdens in overcrowded classrooms, leading to reliance on lecture-based delivery rather than interactive pedagogies. High student-to-teacher ratios reduce opportunities for differentiated learning, meaningful assessment and collaborative group work—all of which are essential components of modern curriculum frameworks.

Internationally, the UNESCO Global Education Monitoring Report (2023) confirms that large class sizes negatively correlate with implementation quality, particularly in contexts where teachers lack adequate support and classroom management training. Excess workload not only reduces instructional quality but also contributes to teacher burnout and attrition, further weakening implementation efforts.

Inadequate Instructional Resources

Resource scarcity is a pervasive constraint on curriculum implementation. Curriculum reforms increasingly assume the availability of textbooks, laboratories, digital tools, libraries, and other instructional materials. Yet, in many Nigerian schools—especially in rural and semi-urban areas—such resources are limited or non-existent. Yusuf and Abubakar (2023) examined the integration of ICT in Nigerian secondary schools and found that while teachers expressed willingness to adopt digital pedagogies, the absence of reliable electricity, computers, and internet access significantly limited implementation. Teachers often improvised with photocopied handouts or chalk-and-talk methods, undermining the intended learner-centred practices envisaged in policy documents.

The World Bank (2022) emphasizes that resource inadequacy undermines not only technology usage but also basic curriculum delivery. When schools lack textbooks, teaching aids, and science equipment, teachers must either compensate with their own materials or simplify curricular expectations. Such compensatory strategies often dilute curriculum intentions and increase teacher workload.

Teacher Motivation and Welfare Challenges

Teacher motivation—influenced by remuneration, career progression, working conditions, and professional recognition—significantly affects curriculum implementation quality. In Nigeria, low salaries, delayed promotions, and insufficient incentives are widely reported (Aina, 2021). These conditions reduce teacher morale and instructional commitment. Leech et al. (2022) highlights that rural teachers, in particular, face isolation, limited career opportunities, and poor housing conditions—factors that contribute to high turnover and absenteeism. Teachers experiencing low motivation are less likely to invest time in lesson planning, reflective practice, or curriculum innovation. Instead, they resort to minimal compliance strategies that satisfy administrative expectations but fail to engage learners robustly. International research supports these findings. UNESCO (2022) asserts that teacher welfare influences instructional quality more than curriculum design alone. Without professional incentives, even highly qualified teachers may become disengaged.

ICT Divide and Digital Literacy Challenges

While ICT integration presents opportunities for innovative pedagogy, a significant digital divide constrains teacher capacity. Yusuf and Abubakar (2023) found that while some Nigerian teachers possessed basic digital skills, many lacked advanced training in educational technologies. Moreover, infrastructural deficits unreliable electricity, limited internet access, and inadequate devices exacerbate these challenges. The OECD (2023) emphasizes that digital literacy is now a core component of teacher competency frameworks. However, teachers require systematic training, ongoing technical support, and incentives to integrate ICT meaningfully into curriculum delivery.

Conclusion

The role of the teacher in curriculum implementation is central and multifaceted, encompassing interpretation, instructional design, facilitation of learning, assessment, reflection, and change agency. Teachers are not merely conduits for transmitting curriculum content; they are the key determinants of whether curriculum objectives are translated into meaningful learning experiences. The empirical and theoretical evidence reviewed underscores that the quality of curriculum implementation is directly dependent on teacher competence, professional knowledge, pedagogical skills, attitudes, and motivation (Fullan, 2020; UNESCO, 2022).

Despite their centrality, teachers face significant challenges that impede effective curriculum enactment. Inadequate pre-service preparation, limited professional development, large class sizes, insufficient instructional resources, frequent policy shifts, weak leadership support, poor welfare and motivation, linguistic and cultural barriers, and digital literacy gaps collectively constrain teachers' ability to implement curriculum effectively (Adeyemi & Adeyinka, 2021; OECD, 2023; Yusuf & Abubakar, 2023). These challenges highlight that curriculum implementation cannot be viewed in isolation from broader systemic, institutional, and socio-cultural contexts. Teachers' effectiveness is intricately linked to the structural and professional environment in which they operate.

Recommendations

Addressing the multifaceted challenges affecting teachers' roles in curriculum implementation requires systemic, coordinated, and sustainable reforms. Since teachers are the primary agents through whom curriculum policies are translated into classroom realities, strengthening their capacity, motivation, and working conditions is not optional but fundamental to educational transformation (Fullan, 2020; UNESCO, 2022). The way forward must therefore integrate reforms in teacher preparation, professional development, instructional leadership, policy coherence, infrastructure investment, teacher welfare, and digital readiness.

Strengthening Pre-Service Teacher Education

One foundational strategy is the reform of pre-service teacher education programs. Teacher preparation institutions must align their curricula with contemporary pedagogical demands, competency-based approaches, inclusive education principles, and digital literacy requirements. Research consistently shows that teachers who receive strong clinical preparation - including supervised practicum, mentoring, and reflective coursework - demonstrate greater classroom readiness and curriculum implementation competence (Darling-Hammond *et al.*, 2021).

In the Nigerian context, strengthening teacher education colleges and faculties of education to emphasize curriculum theory, instructional design, assessment literacy, and classroom

research is critical. The Federal Ministry of Education (2021) underscores the need for harmonizing teacher education standards with national curriculum reforms. By embedding practical, school-based experiences and reflective practice models into pre-service training, new teachers will enter classrooms better equipped to interpret and implement curricular objectives effectively.

Institutionalizing Continuous Professional Development (CPD)

Beyond pre-service preparation, teachers require sustained professional learning throughout their careers. One-off workshops are insufficient to transform classroom practice. Effective professional development must be continuous, collaborative, context-specific, and linked directly to curriculum goals (Darling-Hammond, 2021). Adeyemi and Adeyinka (2021) found that Nigerian teachers who participated in ongoing professional development programs exhibited improved curriculum delivery and instructional alignment. Thus, educational authorities should institutionalize structured CPD frameworks that include, professional learning communities, lesson study cycles, peer observation and feedback, coaching and mentoring systems and curriculum-focused workshops with follow-up support UNESCO (2022) emphasizes that professional development should not only enhance pedagogical skills but also strengthen teachers' agency as curriculum designers and reform participants. Schools should allocate protected time for collaborative planning and reflective dialogue, ensuring that professional learning becomes embedded in daily practice rather than an occasional event.

Improving Teacher Welfare and Motivation

Teacher motivation significantly influences curriculum implementation quality. Low remuneration, delayed promotions, and inadequate working conditions diminish morale and professional commitment. Addressing these welfare challenges is essential for sustaining reform efforts. UNESCO (2022) asserts that teacher motivation correlates strongly with instructional effectiveness and student outcomes. Governments must therefore prioritize competitive salaries, timely promotion structures, rural posting incentives, housing support, and recognition awards for excellence. In Nigeria, improving teacher welfare will not only reduce attrition but also strengthen professional identity and commitment to curriculum innovation. A motivated teacher is more likely to invest time in lesson preparation, adopt learner-centred strategies, and engage in reflective practice.

Reducing Class Sizes and Workload Burdens

Overcrowded classrooms and excessive administrative responsibilities undermine teachers' ability to implement curriculum effectively. Policymakers should adopt recruitment drives to reduce student-teacher ratios, particularly in underserved regions. The Organisation for Economic Co-operation and Development (OECD, 2023) reported that lower student-teacher ratios correlate with improved instructional quality and enhanced opportunities for differentiated learning. In addition to recruitment, workload rationalization policies should streamline administrative tasks, allowing teachers to focus on instructional planning and assessment. Providing classroom assistants or teaching aids in large classes may also enhance implementation effectiveness, particularly for competency-based and interactive curricula.

Investing in Instructional Resources and Infrastructure

Curriculum reforms must be accompanied by adequate material support. The World Bank (2022) emphasizes that learning poverty persists in contexts where teachers lack basic instructional resources. Investments in textbooks, laboratories, libraries, and digital infrastructure are therefore essential. For Nigeria and similar contexts, strategic resource allocation should prioritize rural and marginalized schools to reduce inequities in curriculum

implementation. Public-private partnerships may also support infrastructure development, particularly in ICT integration initiatives. Teachers should additionally be trained in improvisation techniques, enabling them to develop low-cost instructional materials where resource scarcity persists.

Expanding Digital Literacy and ICT Capacity

Digital transformation is reshaping curriculum delivery globally. However, effective integration requires teacher training, infrastructural support, and ongoing technical assistance. Yusuf and Abubakar (2023) found that Nigerian teachers with ICT training demonstrated improved curriculum innovation. Governments should therefore implement national digital literacy programs targeting teachers, alongside investments in reliable electricity and internet connectivity. Blended learning models, open educational resources (OER), and virtual professional learning communities can further expand teacher capacity. Digital inclusion strategies must ensure that rural and underserved schools are not excluded from technological advancements.

References

- Adeyemi, T., & Adeyinka, A. (2021). Teacher professional development and curriculum implementation in Nigeria. *Journal of Educational Research and Practice*, 11(3), 45–60.
- Aina, O. (2021). Class size and curriculum coverage in Nigerian public secondary schools. *Nigerian Journal of Educational Administration*, 18(2), 88–104.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2021). Effective teacher professional development. Learning Policy Institute.
- Eze, C., & Nwachukwu, J. (2024). Reflective teaching practices and curriculum adaptability in Southeast Nigeria. *African Journal of Curriculum Studies*, 14(1), 33–52.
- Federal Ministry of Education. (2021). National curriculum policy (Revised Ed.). Abuja, Nigeria: Federal Ministry of Education.
- Fullan, M. (2020). The new meaning of educational change (5th Ed.). Teachers College Press.
- Okafor, L., & Chukwu, P. (2023). Professional development participation and curriculum adoption in Nigerian basic education. *Journal of Educational Policy and Practice*, 7(4), 75–94.
- Okeke, C., & Ibeneme, O. (2022). Teacher qualification and curriculum delivery effectiveness in Nigerian secondary schools. *Nigerian Journal of Curriculum Studies*, 29(2), 101–118.
- Organisation for Economic Co-operation and Development. (2023). Education at a glance 2023: OECD indicators. OECD Publishing.
- Ornstein, A. C., & Hunkins, F. P. (2022). Curriculum: Foundations, principles, and issues (8th Ed.). Pearson.
- Taba, H. (1962). Curriculum development: Theory and practice. Harcourt, Brace & World.
- Tyler, R. W. (1949). Basic principles of curriculum and instruction. University of Chicago Press.
- UNESCO. (2022). Transforming education from within: Teacher capacity and reform implementation. UNESCO Publishing.
- UNESCO. (2023). Global education monitoring report 2023: Accountability in education. UNESCO Publishing.
- Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Harvard University Press.
- World Bank. (2022). The state of global learning poverty 2022 update. World Bank.
- Yusuf, M., & Abubakar, S. (2023). ICT integration and curriculum implementation in Nigerian secondary schools. *African Journal of Educational Technology*, 15(1), 55–72.
- Ornstein, A. C., & Hunkins, F. P. (2022). Curriculum Foundations, Principles and Issues (8th Ed.). Pearson Education
- Santrock, J. W. (2021). Educational Psychology (7th Ed.) McGraw- Hill Education
- Le Cornu, R., & Peters, J. (2005). Towards constructivist classroom: The role of the reflective teacher. *Journal of Educational Enquiry*, 6 (1), 50—64

- Tanner, D., & Tanner, L. N. (2007). Curriculum development Theory into Practice (4th Ed.). Pearson Education.
- Ogegbo, A. A. (2024). ICT integration into the teaching and learning of science: Experiences and Perceptions of secondary school teachers. *African Perspective of Research in Teaching and Learning Journal*, 8(1), 25—38
- Ezeani, C. (2021). Instructional adaptation and Assessment Strategies in contemporary classrooms. *African Journal of Pedagogical research*, 12(2), 55—70
- Nwachukwu, I., & Garba, Y. (2023). Reinforcement and teacher—learner relationships: A pathway to emotional engagement. *Journal of Educational Communication and Pedagogical Studies*, 14 (2), 74--89
- Piaget, J. (1972}. The Psychology of the child. Basic Books.
- Stenhouse, L. {1975}. An introduction to curriculum research and development. Heinemann Educational Books.
- Leech, N. L., Haug, C. A., Rodriguez, E., & Gold, M. (2022). Why teachers remain teaching in rural districts: Listening to the voices from the field. *The Rural Educator*, 43(3), 1--9