

White Paper

Quality Teacher Professional Development at Scale: Policy Considerations for the Next Decade in Africa

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About the Empowering Teachers Initiative

The Empowering Teachers Initiative: Teacher Professional Development at Scale (ETI) is a research for development program that seeks to improve teacher practices in the Global South by improving equity, quality and efficiency in teacher professional development (TPD) systems. The program's objectives, corresponding to its three main components, are: (1) *knowledge generation*: to understand how large-scale TPD systems in the Global South can be made more equitable and efficient without compromising quality, (2) *capacity strengthening*: to strengthen the capacity of in-country education stakeholders in the Global South to develop, manage and continuously improve their large-scale TPD systems, and (3) *policy and practice influencing*: to contribute to evidence-informed policies and practices in the Global South, towards more equitable, high-quality and efficient TPD systems.

ETI is implementing work across Asia, Latin American and the Caribbean, and sub-Saharan Africa, promoting research-policy collaborations in 16 countries, using evidence-informed frameworks to continuously improve large-scale TPD systems. Governments are expected to adopt an inclusive approach, prioritizing equity, quality and efficiency in designing and implementing TPD programs. ETI aims to impact over three million teachers and at least 50 million students.

Led by the Foundation for Information Technology Education and Development (FIT-ED) and SUMMA, Laboratory for Education and Research Innovation for Latin America and the Caribbean, this 42-month long program is providing grant funding and technical support to 10 studies, involving in-country researchers working closely with governments to strengthen and improve their TPD system and equitably scale high-quality TPD innovations. It is providing technical support to a further five country-level studies funded by third parties, along with undertaking meta-studies and specialized research, conducting capacity strengthening activities, and organizing policy and practice influencing events for government policy makers and decision makers, researchers, TPD designers and implementers, and other key stakeholders at sub-national, national, regional, and international levels.

About the authors

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* The job titles and roles were those shared in August 2025 at the time of the workshop.

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Acronyms

AFTRA	Africa Federation of Teaching Regulatory Authorities
BETTER	Better Education through Teacher Training and Empowerment for Results (Mozambique)
CoL	Commonwealth of Learning
CoP	communities of practice
CPD	continuing professional development
DAPP	Development Aid for People to People
DRC	Democratic Republic of the Congo
FAWE	Forum for African Women Educationalists
GEDSI	gender equality, disability and social inclusion
ICT	information and communications technology
ILO	International Labour Organization
LIRE	Learning Improvement for Results in Education (Niger)
MINEDH	Ministry of Education and Human Development (Mozambique)
NGO	non-governmental organization
ODL	open and distance learning
OER	open educational resources
PLC	professional learning community
PQE	professional qualifying examinations
STEM	Science, Technology, Engineering, Mathematics
TRCN	Teachers Registration Council of Nigeria
TPD	teacher professional development
TTC	teacher training college
TTI	teacher training institute
T-TEL	Transforming Teacher Education and Learning (Ghana)
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations Refugee Agency
ZEST	Zambian Education School-based Training

Terminology

In this White Paper, we use the following terms:

Teacher professional development (TPD) (and on occasions, **teacher education**) to refer to both pre-service teacher education and continuous professional development (CPD).

Pre-service teacher education to refer to initial teacher education undertaken in a university, teacher training college (TTC) or teacher training institute (TTI).

Continuing Professional Development (CPD) to refer to the lifelong process of learning activities that teachers engage in to update and enhance their skills, knowledge and expertise and ensure that they remain effective in supporting student learning.

Education authorities to refer to the broad group of government ministries, agencies, independent regulatory bodies and commissions that play a core role in teacher education. These vary from country to country but include ministries of education, teacher service commissions, teacher regulatory authorities, universities, teacher training colleges/institutes.

Promising practice to describe different initiatives and approaches to both narrow and broad aspects of teacher education that have been either piloted or adopted by a country at some kind of scale (e.g., across several districts/regions or nationally rather than just in a few schools). Where these are broad and multifaceted, we have drawn out specific recommendations or principles for replication by other countries. Where outcome or impact data was available, we have included this. However, as many examples were either ongoing, at an early stage of implementation, or not subject to evaluation, there was no publicly available outcome and impact data.

Summary of calls to action and policy considerations

This White Paper looks to provide African governments with a series of calls to action and policy considerations, to build momentum on the progress already made in teacher professional development (TPD) across the continent over the last 25 years. They are designed to help African countries make further steps to “improve teacher policies, education, professional development, and accountability”, a key objective outlined in the African Union’s (2025) “Continental Education Strategy for Africa, 2026-2035”. This will ensure that teachers are equipped with relevant skills, vital for the future economic and social prosperity of both their own individual countries and the African continent.

The calls to action and policy considerations draw from research evidence from across the continent, a survey completed by 163 teacher education stakeholders (government officials, university academics and teacher educators, as well as teacher unions and international partners) spanning 36 countries, and the testimonies of teacher educators from 12 African countries.

Overarching call to action: Ministries of education and authorities regulating teaching should prioritize the updating and implementation of teacher education legislation, frameworks, policies and strategies, and institutionalize periodic monitoring and evaluation mechanisms to hold implementers accountable. This builds on one of the recommendations from the UNESCO World Summit on Teachers “Santiago Consensus” (2025) which focuses on implementation.

*“We call for the swift, full, and effective implementation of the aforementioned priority actions, and encourage each Member-State and participant in the present Summit to adopt and **implement without delay** in accordance with their national circumstances, the Recommendations of the United Nations Secretary-General’s High-Level Panel on the Teaching Profession to help address the global teacher shortages, by investing in attractive conditions of employment, **providing teachers with the support, professional autonomy and accessible opportunities for continuous professional development they need to meet the demands of rapidly changing education systems and achieve SDG 4.**” (UNESCO, 2025a, p.7)*

Call to action – coherence: African countries should align their national teacher education policy with the African Union (2019a, 2019b, 2019c) continental teacher frameworks on teaching standards and competences, teacher qualification, and professional regulation of teaching, as these frameworks ensure coherence and harmonization of pre-service teacher education and continuing professional development (CPD).

Call to action – relevance: African countries should adopt practice-based teacher education, including stronger school-college/university and other TPD provider partnerships, in order to improve the relevance and the quality of teaching.

Call to action – equity: Education authorities of all African countries and development partners should take a gender equality, disability and social inclusion (GEDSI)-mainstreaming approach to CPD, to ensure all teachers can participate fully.

Call to action – technology: Governments in Africa should ensure they develop policies for the use of artificial intelligence in education to guide TPD designers and providers in utilizing these tools in teacher education.

The African continent is home to 54 countries, which each have unique TPD systems that have evolved over decades. While there are common elements across many of these systems, each system is at a different stage of maturity across core elements. This is evidenced by the promising practices highlighted across the four themes of this White Paper, which are drawn from a variety of countries.

Recognizing the unique context of each country, this White Paper proposes six policy considerations. It is important to look at these policy considerations as building on what already exists in each country, and looking to strengthen it further.

Policy consideration 1: National ministries of education should develop and adopt a national framework for teacher education.

Policy consideration 2: Government policymakers should ensure the professionalization of teachers through legislation and institutionalization of all CPD.

Policy consideration 3: Countries that already have teacher education frameworks and policies in place should review these, in relation to equity, relevance and coherence (between pre-service teacher education and CPD).

Policy consideration 4: National ministries of education and teacher education providers should ensure teacher education curricula has strong relevance to diversity of classroom contexts and teacher needs.

Policy consideration 5: Education authorities in Africa should leverage a range of contextually appropriate digital technologies and open practices (open and distance learning/open educational resources) to enable all teachers to participate in practice-based quality TPD.

Policy consideration 6: Ministries of education should take the lead in developing collaborative networks with all key stakeholders working on TPD, to improve communication and dissemination channels on national TPD frameworks and policies, ensuring TPD programs are responsive to the needs of teachers.

Introduction and framing

Africa has a dream of becoming a prosperous continent by 2063 (Africa Union, 2015a). Education, particularly teacher education, is key to achieving this dream (African Union, 2015b, 2025). This position also aligns with the Sustainable Development Goal 4 on education, specifically target 4c: increasing the supply of qualified teachers in developing countries (United Nations, 2015). To lay the foundation for a positive strategic shift in teacher education, practice and professionalism in Africa, the African Union commissioned a continent-wide study on teacher training, working and living conditions (African Union, 2017). This study vividly documented the lack of access to quality professional development for most teachers and the use of a large number of untrained teachers to offset teacher shortages. The study further underlined that “differences in preparation both in terms of content and process have led to differences in the quality of trained teachers on the continent both between countries and within countries” (African Union, 2017, p. 80).

To address the challenges related to teacher education (both pre-service and in CPD), the African Union has developed continental frameworks for teacher and school leadership standards and competences, teacher qualifications, and the professionalization of teaching (African Union, 2019a, 2019b, 2019c).

Over the last 25 years, the African Union and Member States have invested enormous resources in addressing issues of teacher quantity and quality. As a result, between 2000 and 2024, sub-Saharan Africa more than doubled the number of primary teachers from 2 million to 4.9 million. The number of secondary teachers increased from 0.9 million to 3.7 million (UNESCO, 2025b). Despite these quantum leaps in the numbers of teachers, as with other parts of the world, the proportion of trained teachers in sub-Saharan Africa declined across all education levels – from 85 percent to 69 percent for primary education, and 79 percent to 59 percent for secondary education (UNESCO, 2025b). This decline is attributable to a persistent gap in teacher preparation and professional development. At the same time, poor learner outcomes and high levels of out-of-school children remain prevalent on the continent.

“One in five primary school-age children in sub-Saharan Africa are out of school; their number is nearly as high as it was in 1990. Only two in three children in the region complete primary school by age 15. Among those who do, only three in ten achieve the minimum proficiency level in reading, meaning that barely one in five children do so overall.” (Global Education Monitoring Report Team, 2020, p. 1)

This situation still prevails, as only 1 in 10 African children meets minimum proficiency levels in learning at the end of primary school (Global Education Monitoring Report Team, 2025).¹ This suggests the need for urgent attention to teacher education, also advocated by UNESCO’s (2023) “Global report on teachers”, which reports on serious teacher shortages across the world. This report indicates sub-Saharan Africa needs 15 million teachers, and Northern Africa and Western Asia need 4.3 million additional teachers by 2030. The report recommends holistic remedial measures that include fostering TPD and lifelong learning, in addition to

¹ This report draws on country data across the 2007 to 2023 period.

enhancing teacher motivation, professionalization of teaching, and making teaching an appealing profession, among others. The emphasis on teacher education is also highlighted by the United Nations' Secretary-General's "High-Level Panel on the Teaching Profession" (International Labour Organization [ILO], 2024, p. v) which called for "innovation in teaching through training and lifelong learning".

This White Paper sets out to look at how to build momentum on the progress already made in TPD in Africa over the last 25 years. It presents a situation analysis drawing on evidence including testimonies of teacher educators, as well as outlining promising practices. The hope is that it will provide teacher educators and policymakers with calls to action, and policy considerations that help countries make further steps towards providing quality teacher education; this latter is a key objective outlined in the African Union's (2025) "Continental Education Strategy for Africa, 2026-2035". This will ensure that teachers are equipped with relevant skills, vital for the future economic and social prosperity of both their own individual countries and the African continent.

The White Paper draws on the three core principles of the Empowering Teachers Initiative (ETI) – equity, quality and efficiency – as well as focusing on doing this at scale. ETI holds that the concepts of equity, quality and efficiency are central to the design and implementation of large-scale teacher education. **Equity** in teacher education is concerned with recognizing teacher diversity – diversity of characteristics, prior experiences, working contexts and professional learning needs, in all parts of the education system in which professional learning is embedded. For teacher education to be truly equitable, all teachers must have regular opportunities to participate fully in quality professional learning experiences which respond to their own identified professional learning needs. **Quality** in teacher education involves adhering to the characteristics of successful teacher education, established by rigorous research, in ways which are appropriate to the conditions in which teachers are practicing. **Efficiency** refers to the optimization of inputs to achieve the desired outputs and outcomes in any one context: it requires achieving the optimal balance between cost, participation and quality in the program or initiative (Ndaruhutse, 2022). These three concepts – equity, quality and efficiency – are seen as existing in a delicate equilibrium, that is dynamic, unique to each context, and often involves compromises (Wolfenden, 2022). Thus, working at scale in teacher education goes beyond merely recruiting large numbers of teachers into various teacher education programs; it requires leveraging a range of tools, resources and approaches to empower all teachers to improve their professional practice and better support all their learners achieve their learning goals.²

2 <https://eti.tpdatscalecoalition.org/about-eti/>

Methodology

This White Paper has been informed by a combination of literature reviews (academic and policy/grey literature), a survey and expert stakeholder consultations. It focuses on basic education (primary and secondary) and aims to offer concrete calls to action and policy considerations. Key steps in the methodology included:

1. **Background research** to produce an annotated bibliography of key publications on TPD in sub-Saharan Africa. This included approximately 180 predominantly academic journal articles in English. This was then supplemented by a further 90+ research articles and additional government policy/strategy documents (in English and French), and country case studies provided by country-level experts.
2. A **survey** (in English and French) to gather stakeholder views from across the continent on key trends, issues, challenges and innovations in TPD. This was completed by 163 respondents spanning 36 countries. Respondents included government officials, university academics and teacher educators, as well as teacher unions and international partners. Teacher qualifications were held by over 90 percent of respondents.
3. Drawing on the background research, key findings from the survey and discussions amongst the authors to focus on **four key themes**:
 - Theme 1: Coherence of teacher education (focusing on policy alignment issues)
 - Theme 2: Relevance of teacher education (focusing on practice issues)
 - Theme 3: Equity and inclusion in teacher education
 - Theme 4: Use of technology to support teacher education
4. A series of four **virtual engagement workshops** around these four themes, facilitated by Professor Betty Ezati and Professor Steve Nwokeocha, with **10 other African TPD experts** (a mix of government officials, university academics and teacher educators, and a freelance TPD consultant), each representing a different country, to discuss contextual issues and gather country examples of good practice. One set of workshops was conducted in English, the other in French with simultaneous translation, to ensure that the research was not heavily biased towards Anglophone country perspectives.
5. A series of **shaping workshops** by the authors to agree on structure, content and promising practices for the White Paper, and to peer-review different sections.

Together, these efforts have ensured that the **White Paper reflects both global evidence and grounded African perspectives**, with strong links between conceptual frameworks, practical country cases, and actionable recommendations.



Credit: EdTech Hub Research Team

Theme 1: Coherence of teacher education

Situational analysis

Coherence in teacher education can be discerned from the extent to which the curriculum is aligned with standards, policies and practices, as well as on how the various courses build upon and support one another (Lindvall & Ryve, 2019). Viewed in line with this definition, the links between pre-service teacher education and teacher CPD, especially the structure and models, design and organization, modes of offering, and funding modalities, are weak in many African countries. In our survey, around 37 percent of respondents picked “coherence between pre-service and in-service” in their top three components of high-quality teacher education, with only 47 percent of respondents rating it as working well or very well in their countries.

In terms of structure and models, pre-service teacher education is well organized with clear structure and curriculum, while CPD is less streamlined. In Burkina Faso, pre-service teacher education is a two-year program – the first year being theory-based at a teacher training institute (TTI) with some observation in schools, and the second year, a practice-based year in schools. There is good alignment in theory, but there are limited opportunities to reinforce the connection between the theoretical and the practical training, through critical reflection in light of classroom realities, as the TTI’s tutors are not able to provide as much supervision as needed.³ As the broader literature confirms, the conditions and instructional practices that student

³ Country example given by expert in engagement workshop.

teachers experience during their higher education course, and the professional context where they work often differ (Oluwatoyin & Govender, 2024; Akyeampong, 2017; Pryor et al., 2012). This creates challenges in ensuring that teacher CPD programs build on pre-service learning.

Furthermore, variations in funding modalities make it difficult to align pre-service teacher education and CPD. While pre-service teacher education is mainly funded by national governments, teacher CPD tends to get funding from non-governmental organizations (NGOs) and development partners (Mitchell et al., 2025). As a result, the content of teacher CPD programs receives little inclusion in the pre-service curriculum.

In some countries, fragmented national and regional governance systems (both chains of command and the process of producing collective decisions), each of which has different lines and functional authority, make education coherence a challenge. This was a particular issue highlighted in Ethiopia, where the national and regional lines of accountability are not clearly demarcated. Here, regions manage colleges of teacher education which train primary school teachers, while the federal government manages secondary school teacher education and universities. This has resulted in some inconsistencies, gaps in decision making, and the flow of information between federal and regional actors.⁴

In addition, some countries have many contract and volunteer teachers, who do not receive adequate professional development and may have limited commitment to the teaching profession. In turn, this exacerbates the challenge of coherence. For instance, in Niger, there are many contract teachers who leave at short notice.⁵

Promising initiatives and practices

Developing policies and passing legislation to professionalize teaching

The enactment of teacher education policies is one of several promising ways to improve coherence between pre-service teacher education and teacher CPD. The African Union (2019a) “Continental Guidelines on the Teaching Profession” posits that enacting a law to professionalize teaching is the necessary first step to empower the profession, and bring teacher education (pre-service and CPD) and teacher professionalism under effective control. Hence, in the last 10 years, countries such as Benin, Burkina Faso, Ethiopia, Ghana, Guinea, Kenya, Madagascar, Malawi, Nigeria, South Africa, Togo, Uganda and Zambia have formulated policies to regulate the teaching profession, both pre-service and CPD (International Task Force on Teacher Education, 2021). In the Democratic Republic of the Congo (DRC), the government created a unit within the Ministry of Primary, Secondary and Technical Education, to ensure that all NGOs contributing to teacher CPD undergo an orientation on the CPD vision, needs and goals for DRC, to avoid misalignment.⁶

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4 Country example given by expert in engagement workshop.

5 Country examples given by experts in engagement workshops.

6 Comment by one of the experts in engagement workshops.

Regulating CPD to improve standards and ensure fair access

In a number of countries, government regulation has made CPD more structured, making it more predictable and therefore easily accessible. This is further strengthened by the “points system”, which permits teachers to accumulate points which are then used for renewal of licenses. The fee paid by each teacher for license renewal is used to improve provision of teacher CPD. In addition, the mode of offerings has been diversified, to include online as well as more school-based rather than centralized CPD. In these countries, governments have increased funding for CPD, thus making it more accessible. These initiatives are working well in Ghana (National Teaching Council, Ghana, 2020).

Promising practice – regulatory control of pre-service teacher education and CPD through the Teachers Registration Council of Nigeria

Nigeria has a teaching regulatory authority – the Teachers Registration Council of Nigeria (TRCN) – established by Decree 31 No. 31 of 1993 (Federal Republic of Nigeria, 1993, now TRCN Act Cap. T3 of 2004). Part of the statutory mandates of TRCN is to approve/accredit the curricula of pre-service teacher education and CPD. Having one authority in charge of both curricula has significantly promoted coherence. This function is further strengthened by the composition of the TRCN Governing Board, which comprises leading teacher educators, teacher unions, employers of teachers at the federal and state level and other critical stakeholders.

Consequently, pre-service teacher education and CPD have national curriculum benchmarks approved by TRCN, as well as the authorities responsible for higher education, such as the National Universities Commission and National Commission for Colleges of Education (National Universities Commission, 2022; National Commission for Colleges of Education, 2012). TRCN further conducts professional qualifying examinations (PQE), and registers and licenses teachers. There is a national PQE Benchmark (Teachers Registration Council of Nigeria, 2014) which combines the curricula of pre-service teacher education and CPD. The Benchmark follows the teacher competences (beginner, proficient, expert and distinguished) as prescribed by the African Union (2019a) “Continental Framework of Standards and Competences for the Teaching Profession”. These measures ensure coherence and motivate teacher educators, professional development service providers and teachers to focus on well-coordinated curricula.

Some of the promising practices in the Nigerian case which could be relevant to other African countries are the following:

1. **Enactment of a law to professionalize teaching and to establish a professional regulatory authority.** Such an authority will have powers to coordinate and accredit pre-service teacher education and CPD programs. This ensures that CPD is not developed at random, with neither coordination nor linkage to pre-service teacher education, nor realities in the classroom.
2. **Administration of professional competency tests.** Tests for both newly qualified and established teachers, according to their career stages, make it possible for both service providers and teachers themselves to focus on approved curriculum. It also promotes accountability on the part of service providers and teachers.
3. **Development of national curriculum frameworks.** Institutionalization of national pre-service teacher education and CPD frameworks promote coherence, especially when designed by a central authority working with leading teacher educators, teacher unions and employers of teachers.
4. **Existence of a national framework of teaching standards and competences and national teacher policy.** These policy frameworks, aligned with the African Union (2019a) “Continental Framework of Standards and Competences for the Teaching Profession”, and UNESCO (2019) “Teacher Policy Development Guide”, ensure that pre-service teacher education and CPD focus not just on national but also international best practice.
5. **Providing incentives for compliance.** Apart from enacting a law (TRCN Act) that professionalizes teaching, there is also another law, “Harmonised Retirement Age for Teachers in Nigeria Act 2022” (Federal Republic of Nigeria, 2022), which empowers registered and licensed teachers to retire at the age of 65 years, whereas the normal retirement age in the Nigerian civil service is 60 years of age. This serves as a serious motivating factor, and underscores both the Government’s seriousness in regulating the profession, and the importance of TRCN as a regulator.

Aligning content of pre-service teacher education and CPD

Simultaneous introduction of changes in the teacher education curriculum and CPD of serving teachers has improved the alignment of pre-service training and CPD. In Kenya and Uganda, curriculum changes are accompanied by changes in the pre-service curriculum as well as CPD for serving teachers. Countries such as Burkina Faso, Ethiopia, Ghana, Kenya, Lesotho and Uganda are undertaking comprehensive curriculum reforms for pupils from a teacher-centered approach to a learner-centered approach.⁷ This is also accompanied by massive teacher re-training and incorporation in pre-service teacher programs, as witnessed in Ghana, Kenya, Malawi, Uganda and Zambia, among others (Mitchell et al., 2024).

⁷ Country examples given by experts in engagement workshops.

Promising practice – aligning pre-service training and teacher CPD in Uganda

Improving literacy instruction in the early grades of primary school has been a focus in a number of African countries. In Uganda, the challenge of early grade reading was first addressed through CPD of serving teachers. Limited attention was placed on pre-service teacher education. However, it was discovered that CPD only addresses the teachers in schools, leaving a gap in knowledge for those in TTIs. It was realized that:

If EGR [early grade reading] was not in the pre-service teacher education curriculum, students would not be trained in it. If the pre-service students did receive training, EGR would not be sustained. If not sustained, MoES [Ministry of Education and Sport] and partners' efforts to improve EGR would be futile (Tiguryera, 2018, p. 9).

As a result, with support from development partners, the Uganda Ministry of Education and Sport reviewed the primary teacher education curriculum, to incorporate evidence-based phonics and pedagogy, and aligned the pre-service curriculum with the early grade reading pedagogies. Other strategies used to enhance pre-service teacher education curriculum included: (i) a practicum to strengthen pre-service experience through exposure to the classroom environment; and (ii) CPD of teacher educators in early grade reading methods.

In conclusion, coherence of pre-service teacher education and CPD is not a single act, but a complex set of (interwoven) laws, policies and practices that reinforce one another, and collectively safeguard the integrity of teacher preparation and development. The policies serve as foundations and blueprints, as well as the boundaries of teacher education.



Credit: Emmanuel Ikwuegbu

Theme 2: Relevance of teacher education

Situation analysis

Relevance in education is defined by how meaningful the curriculum content is to all learners, the value placed on it by their communities, and its alignment with national development priorities (Tikly & Barrett, 2012). This concept also extends to the methods used for curriculum delivery, encompassing the language of instruction, pedagogical strategies, and instructional materials employed. Despite its importance, various challenges continue to undermine the relevance of teacher education for both teachers and their learners (Abakah et al., 2023; Mahama et al., 2022), and for a rapidly evolving world and uncertain future scenarios (McNaught & Gravett, 2021).

Insights from our engagement workshops and literature review highlight a disconnect between teacher education curricula and the contexts of primary and secondary schools. Reports also indicate that these curricula are often insufficiently responsive to changing societal needs, and lacking in adaptability (Evans & Acosta, 2021). Frequently, the focus remains on systematized knowledge, with little attention given to classroom practice, or the emotional and personal aspects of becoming a teacher. Consequently, student teachers may struggle to translate theoretical understanding into effective classroom practice (Robinson et al., 2024). One expert participating in our engagement workshops aptly summarized the issue:

*"The day is technological, but the learning is classical, yet a teacher still acts as a source of knowledge, which is overdue – as knowledge is everywhere through technology. In this regard, there is a need for a deep dive to examine relevance."*⁸

8
Comment by one of the experts in engagement workshops.

A particular concern is language. Teacher education institutions use Arabic, English, French and Portuguese – a situation not aligned to the language of instruction in many primary schools, which mainly use the language of the community. Furthermore, teacher education institutions do not emphasize language proficiency, and do little to encourage student teachers to practice these languages during their training (Evans & Acosta, 2021). As a result, teacher trainees neither have adequate competence to use local languages for instruction in primary schools (AIR, 2024), nor good command of the foreign language to effectively implement the secondary school curriculum. In addition, findings show inadequate teacher support in pre-service and CPD programs for handling large classes, mixed age and multigrade classes, inclusive education, use of gender sensitive pedagogy, mental health and psycho-social support, socio-emotional learning, safeguarding learners, and prevention of gender-based violence in schools (Mendenhall, 2024; International Commission on the Futures of Education, 2021). Neither pre-service nor CPD are found to adequately support teachers to work with learners in rural areas (Ansell et al., 2023). These absences are compounded by a lack of high-quality supervision and mentoring during the pre-service practicum, and the tendency to hold CPD sessions outside of the school setting (rather than situating them in the teachers' school and including classroom activities). These factors weaken the utility of CPD learning (Akyeampong, 2017; Tuli, 2017), leading to a situation where some teachers regard it as a compliance activity, rather than a space for professional growth and development (Johns & Sosibo, 2019).

Promising initiatives and practices

Increasing the contribution of research and school-community links in pre-service teacher education

Countries are increasingly adopting research-informed and community-based teacher education, to improve its relevance. In South Africa, for example, there are multiple effective interactions between policymakers, teacher educators, community organizations and researchers, leading to a greater use of research in and on teacher education (Robinson et al., 2024). In Lesotho College of Education, action research is used for trainee teachers, to promote teacher agency to analyze and develop local solutions to complex problems of teaching and learning in classrooms (Ansell et al., 2023).

Promising practice – adapting the pre-service curriculum to ensure relevance for rural communities

In Malawi, four colleges of education run by [Development Aid from People to People \(DAPP\)](#) have developed an innovative pre-service curriculum, specifically to prepare teachers to work in poor, rural communities. The program is aligned with the Malawi national curriculum for teacher education, but with a focus on developing student teachers' skills in recognizing the knowledge and experiences brought by pupils in low-resource rural areas, and the challenges of schooling in these environments.

Student teachers spend considerable time in rural schools observing classes, reflecting on teaching approaches and working collaboratively, with all members of the school community – learners, parents and caregivers, parent-teacher associations, mothers' groups, school management committees, and community leaders. To date, the colleges of education have trained over 4,000 teachers (Wolfenden et al., 2018; DAPP, n.d.).

Strengthening school-college/university partnerships and practice-based teaching in initial teacher education

Numerous global and regional reports advocate partnerships between TTIs and schools, to ensure that aspiring teachers have opportunities to learn through practice, and experience the reality of classroom conditions in a supported manner (International Commission on the Futures of Education, 2021). In response, multiple countries are paying greater attention to the practicum and hands-on practice, in a bid to build teacher identity and ease transition from pre-service training to CPD.

In Ghana, the [Transforming Teacher Education and Learning \(T-TEL\)](#) program has revised and updated the content and pedagogy in the pre-service curriculum, to reflect current school priorities in addition to integrating school experiences for trainees more firmly throughout the B.Ed. program (Education Commission, 2019). In Nigeria, the National Commission for Colleges of Education (with the Global Partnership for Education's Knowledge and Innovation Exchange) is piloting a four-part evidence model, to enhance pedagogy in the pre-service curriculum of six colleges of education. The [project](#) focuses on integrating practice, which includes the use of group work, collaborative problem solving, and information and communications technology (ICT) in the classroom.

In Uganda, a formal upgrading program for teachers includes a project component. This offers the opportunity for teachers to engage in authentic learning with colleagues, community members and pupils, to solve a local problem. Supervision and support are provided by the university running the upgrading program. Examples of recent projects include mushroom farming, and making menstrual sanitary pads and products to sell in the community (Walimbwa et al., 2025).

Matching TPD to teacher needs

Learning from our expert engagement workshops show that evidence-based TPD designs which include understanding teachers' needs are being increasingly deployed. Alongside this, resources for teachers are being updated to ensure that the practices advocated in them match teachers' current professional needs. In Benin, teachers are empowered with strategic skills to effectively manage high classroom size.⁹ Similarly, an [initiative](#) in Côte d'Ivoire, the DRC and Senegal is working to improve teacher capacity to support multilingual learning, through existing TPD systems – locally owned, scalable models.

Harnessing expert and peer support in CPD

We note an increasing prevalence of school based professional learning communities (PLCs) or communities of practice (CoPs), where teachers have regular opportunities to discuss their difficulties in practice and collectively develop new knowledge on practice relevant to their own context.

⁹ Country examples given by experts in engagement workshops.

Promising practice – school-based mentorship and communities of practice in Rwanda

In Rwanda, the government introduced a school-based mentorship program, in which mentor trainers provide training to school-based mentors. These mentors then support teachers in strengthening their pedagogical skills during the shift to a competency-based curriculum (Uworwabayeho et al., 2020). This approach involves school- and cluster-based CoPs, where educators exchange experiences and collaborate to enhance instructional methods. It has also been implemented in Kenya, the United Republic of Tanzania (Ministry of Education, Science and Technology, United Republic of Tanzania, 2018) and in Uganda.

Equally promising are initiatives which link across institutions: teacher educators and teachers pair high-skilled teachers with low-skilled ones for support and guidance, seen in a mentoring system in the DRC.¹⁰ In Kenya, the Kenya Institute of Special Education has experimented with CoPs comprising teacher educators and secondary school teachers, to strengthen teachers' skills in inclusive education. Evaluation of this initiative indicated improved participation of learners with disabilities at the teachers' schools, and improved academic performance of all students (Chege et al., 2019).

In Francophone countries, there are numerous examples of interventions with supervisors to encourage them to move from a position of judgement on teachers' work to coaching and mentoring. In Burkina Faso, a professional reflective approach for teacher supervisors is integrated into the system, to help with relevance, linking theory with practice and conditions in schools.¹¹

As CPD becomes more school based, school leaders emerge as critical partners to ensure that conditions support teacher learning (Sam Mbuli & Zhang, 2020; Stutchbury et al., 2023). Additionally, school leaders provide coaching and mentoring to strengthen, sustain and embed new and contextually appropriate teacher practices, in ways which enable teachers to contribute their own classroom knowledge to benefit student learning (Cilliers et al., 2022).

Finally, there are numerous examples of revised or new materials drawing on contemporary issues and classroom realities. In the DRC, a project is providing training for teachers in the revised humanities curriculum. This project offers new modules and guides in five key areas of the curriculum. These are assessed for quality and relevance before implementation (Matondo, 2025). At the National Teachers' Institute in Nigeria, the Green Teacher Nigeria program has been integrated into distance learning. Teacher education provision here takes a problem-based learning approach, to support trainee teachers to learn about the relationship between human behavior and actions, and environmental degradation and pollution (Junaid et al., 2025).

10 Country example given by expert in engagement workshop.

11 Country examples given by experts in engagement workshops.

Promising practice – improving the relevance of pre-service teacher education in Mozambique

Better Education through Teacher Training and Empowerment for Results (BETTER) was a recent project implemented by an NGO in partnership with the Government of Mozambique, to improve the pre-service teacher education program at four TTIs in Cabo Delgado, Maputo, Niassa and Tete provinces.

At the TTIs, the project focused on gender-sensitive pedagogy (aligned with the gender equality strategy of the Ministry of Education and Human Development (MINEDH)), enhancing teachers' language and literacy instructional skills, improvements in teacher supervision during the practicum, and development of more quality materials for teacher educators/teachers.

Project evaluations were positive: teachers were reported by school directors to be better prepared and more confident in using active, gender-sensitive methodologies, and promoting gender equity in their classrooms.

The key innovative practices in this project that could be replicated elsewhere in Africa are:

1. **Local development of contextually-responsive materials** for teacher educators, including two guides on the classroom use of Mozambican languages, integrating active learning approaches and gender equity principles. The guides were approved by MINEDH and distributed nationwide.
2. **Strengthening of mentoring programs** through improved collaboration between the host school and teacher educators, to support teacher trainees during their practicum. A practicum assessment guide to teacher trainees was developed and incorporated into the national curriculum, used in all teacher colleges in the country.
3. **The culture of development of annual plans:** through the project, schools were encouraged to generate annual plans, which included schedules for supporting and monitoring student teachers at schools.
4. **Instigation of gender focal points** (one male, one female) in each TTI, along with gender clubs and an annual gender-awareness-raising week, to address gender-based violence and promote equality.
5. **Enriching libraries** at the TTIs to include works by Mozambican authors, works in local languages and children's books. These were complemented by book clubs for student teachers, to enable student teachers to learn how to use children's books in their classrooms whilst also strengthening their own literacy practices.

Sources: CODE (2020) and CODE (2024).



Credit: Philbert Komba

Theme 3: Equity and inclusion in teacher education

Situation analysis

A persistent reality that runs through the literature (Buckler et al., 2021; Butt, Aziz, & Nadeem, 2021; Guzman & Aguilar, 2025; ILO, 2016; Mitchell et al., 2024), and was also a key finding of our engagement with Africa TPD experts, is that teachers have unequal access to professional development. The reasons for this vary, and are summarized by Mitchell et al. (2024) as including: qualification levels, with a bias towards those with higher levels of existing qualifications (Cheriyen et al., 2021); length of service, with a bias towards those at the beginning or middle of their careers (Geldenhuys & Oosthuizen, 2015); geographical location, with a bias towards teachers working in urban areas; and in some contexts, political affiliation, where teachers who support the political party in power receive priority access (e.g., Ethiopia as cited in Berihu & Mewcha, 2015). Civil service teachers also tend to be favored for professional development opportunities over contract teachers (UNESCO, 2020).

Many teachers have limited opportunities for professional development, due to the high cost, the absence of support by school authorities, the lack of relevance to teaching practice, and constrained time to participate in CPD programs (Butt, Aziz, & Nadeem, 2021; Guzman & Aguilar, 2025). The hierarchical authority that determines who attends professional development also often results in no autonomy and ownership of the professional development process by teachers (Buckler et al., 2021).

Both the literature and our engagement with Africa TPD experts confirmed inequality of professional development opportunities based on geography (with rural, remote, conflict-affected areas and areas hosting refugees being underserved), gender, language, and disability (Ansell et al., 2023; Barayagwiza et al., in press;

Chachage et al., 2025; Hennessy et al., 2025, Mendenall et al., 2018; Singal & Godwin, 2025). It is imperative to design and implement CPD policies that have the capacity to eliminate these barriers, in order to provide teachers with more equitable professional development opportunities.

Promising initiatives and practices

Providing more equitable opportunities to all teachers

Aspects of gender equality, disability and social inclusion (GEDSI) are now included in many education policies in Africa (Mitchell et al., 2024). Implementation has tended to focus more on gender and location, given the impact for scaling. For example, the Forum for African Women Educationalists (FAWE) Centers of Excellence provide CPD on gender-responsive pedagogy in 13 African countries (FAWE, 2018). By contrast, The Gambia is sponsoring the professional development of all school headteachers in batches. This ensures that in the long run, no-one is left behind. Headteachers are released for one-year full-time study leave (with continuation of salary), to obtain a Diploma in School Leadership and Management at a recognized national university (The Gambia Management Development Institute, 2022). As well as the more targeted focus on gender and geographical equity, there are some promising practices of CPD for teachers with disabilities. In Mozambique, some community-based teacher training colleges (TTCs) offer scholarships to visually-impaired graduates from mainstream schools to pursue teacher education programs, including placements in local schools (Education Commission, 2019).

Supporting a diversity of approaches for disadvantaged teachers

With urbanization as a megatrend, yet 57 percent of Africa's population currently residing in rural areas (World Bank, n.d.), the gap between rural and urban teachers in terms of provision of professional development is likely to widen. Therefore, professional development that takes a "one size fits all" approach will no longer be helpful. Accordingly, the most promising case is to take a diversity of approaches and actions that serve the professional needs of teachers, wherever they are. These include the need to promote pre-service teacher education and CPD through open and distance learning (ODL) and digitization, as well as considering more school-based training with flexible scheduling; these approaches are especially important for female teachers (Mitchell et al., 2024; Commonwealth of Learning [CoL], 2021).

Promising practice – open and distance learning across Africa

The first phase (2024–2025) of the Commonwealth of Learning (CoL) and Africa Federation of Teaching Regulatory Authorities (AFTRA) ODL project covered four countries: Botswana, Nigeria, the Seychelles and South Africa. Around 200 government officials from the four participating countries contributed to the project's implementation and evaluation, while also identifying additional training needs in various aspects of ODL. Using the 13 innovative micro-courses and five CPD courses, nearly 1,500 teachers and ministry staff were trained, 66 percent of whom were women. Topics ranged from digital learning design, to microlearning and open educational resources (OERs). These resources were adapted to local contexts, ensuring their practical relevance. In addition, the project used the country officials and participating teachers to develop a continental ODL Framework for Teacher Development in Sub-Saharan Africa.

The second phase of the project (2025–2026) covers Lesotho, Malawi, the Seychelles and Togo and is also introducing the use of virtual laboratories to train teachers in science, technology, engineering and mathematics (STEM) and English language. Countries benefiting from within and outside Africa are Botswana, South Africa, Uganda, Belize, Jamaica, and St. Kitts and Nevis. More importantly, the countries have adopted the programs for institutionalization (CoL & AFTRA, 2025a, 2025b; CoL, 2025).

The CoL has also supported the development of a massive open online course on inclusive teaching and learning. In 2022, this was delivered in partnership with the Kenya Institute of Special Education, reaching over 2,000 participants across 38 countries, with 52 percent of participants being female (CoL, 2022).

Other promising practice includes the potential for using educational technologies backed by solar power for connectivity, and online training of teachers (European Commission, 2025); bringing regional or country TTCs nearer to communities to provide more equitable access (e.g., Kenya, Senegal and Zimbabwe);¹² and targeted training of teachers within rural schools to reduce rural-urban disparities, an approach that Zimbabwe is taking with a focus on Science teachers¹³ after discovering that approximately half of all Science teachers in rural areas lacked proper training, compared to only one quarter of Science teachers in urban areas (Bashir et al., 2018). Malawi and Tanzania have taken this approach for supporting teachers in underserved areas (Education Commission, 2019).

12 Country examples given by experts in engagement workshops.

13 Country examples given by experts in engagement workshops.

Promising practice – mobile CPD support on gender, disability and refugee education in Niger

Pre-service teacher education for primary school teachers in Niger is provided by 11 TTCs, eight of which are located in regional capitals, in addition to the TTCs in Douthi, Tessaoua, and Magaria (Agence Nigérienne de Presse, 2019). The Directorate of Initial and Continuing Training at the Ministry of National Education has adopted distance learning for teachers. Each TTC has a micro-teaching centre equipped with computer tools for use in teacher education.

As part of pre-service teacher education, modules on inclusion and gender issues have been developed at eight TTCs for student teacher supervisors, so that they can better support refugee learners and children with disabilities, as well as address stereotypes in the classroom.¹⁴ Training in Braille, sign language and equipment adaptation have been offered to teachers through the World Bank-funded Learning Improvement for Results in Education (LIRE) project. Adapted learning resources have also been provided, such as printers and computers.

For CPD, each Regional Directorate has an inclusion officer who oversees a mobile team that provides pedagogical support to teachers on different aspects of equity and inclusion around gender, disability, stereotypes and refugee education.¹⁵

Contextualizing support for teachers in conflict-affected areas and/or refugee teachers

Many teachers teaching in conflict-affected contexts are unqualified, yet they face the most challenging circumstances and receive only “limited, sporadic support” (Mendenall et al., 2018). UNHCR (2024) outlines challenges for teachers in refugee and displacement settings, which include: inadequate professional development; inability to enroll in formal training due to lack of documentation; problems in replacing lost professional credentials; and insufficiency of the training received in the refugee context for professional registration and licensing. UNHCR therefore calls for professional development approaches that are flexible and continuous, rather than a one-off program. This is an approach that the Ministry of National Education and Civil Promotion in Chad adopted, providing Sudanese refugee teachers with a two-year teacher education program in a bilingual TTC – to help them develop literacy skills in French, as well as an understanding of the national (Chad) curriculum – so that they are better equipped to teach in integrated schools (Bergin, 2017).

14 Country examples given by expert in engagement workshop.

15 Country examples given by expert in engagement workshop.

Promising practice – refugee teacher CPD in Kenya

In the Kakuma refugee camp in Kenya, described as the largest refugee camp in the world (with a population of 147,064 refugees from 18 countries), 86 percent of the teachers are refugees and 73 percent are uncertified. Even those certified may require new skills to deal with communication, the new languages of instruction, and provision of psycho-social support. As a strategy to provide CPD in the camp, the Inter-Agency Network for Education in Emergencies sponsored a project called “Teachers for teachers”, which reached nearly 90 percent of all teachers in the camp.

The project developed and conducted field trials for training and coaching packs, used to facilitate the professional development of teachers by teachers and student teachers from non-affected areas. It also incorporated a mobile mentoring component, that connected teachers in the camp with their peers around the world through WhatsApp, for four to six months (Mendenhall, 2017; Mendenhall et al., 2018). Almost half of all teachers involved in the project reported using solutions that had been shared through WhatsApp discussions, implying that the mentoring provided through mobile technology had resulted in improved pedagogical practice (TPD@Scale Coalition for the Global South, 2022).

Promising practice – e-supervision and video coaching for teachers in insecure areas of Burkina Faso and Niger

Woord en Daad, in partnership with the Ministry of Basic Education and the Promotion of National Languages in Burkina Faso, has piloted e-coaching. A digital device, the “E-pedagogical supervision” enables education inspectors and supervisors to monitor the classroom practice of teachers that they are unable to visit in person, due to either remote locations or insecurity. Guidelines and a strategy have been developed for the rollout of this pilot (Woord en Daad, 2025).

Concern’s “Learning Together” program (2020-2025) has supported the schooling of over 75,000 vulnerable children in more than 250 formal schools in the western regions of Tillabéry and Tahoua in Niger. These two regions account for over two thirds of all internally displaced people in Niger (Concern Worldwide, 2025b). Key elements of this program include:

- Working closely with the Regional Directorates of National Education and 12 Inspectorates in Tillabéry and Tahoua.
- Providing distance video-coaching to 164 teachers and facilitators in insecure areas using ICT (tablets, smartphones, tripods, power banks and USB sticks). This CPD is provided by Inspectors and Pedagogical Advisors from the Ministry of Basic Education and the Promotion of National Languages, who cannot access these insecure areas, enabling continued support to teachers working in formal schools for whom face-to-face training is not possible.
- Teachers record themselves teaching and then send the videos to the Pedagogical Advisors, who then watch the recordings and provide feedback to the teachers. Teachers are required to film two 30-45-minute lessons each month, one in mathematics and one in French.
- A community of practice in each school meets monthly to discuss feedback coming from the monitoring report provided by the Pedagogical Advisors.

There are discussions within the Ministry of Basic Education and the Promotion of National Languages about how to scale this approach (Concern Worldwide, 2025a).



Credit: Kristeen Chachage

Theme 4: Use of technology to support teacher education

Situation analysis

Following the Covid-19 pandemic, there has been an increased emphasis on digital competence for all learners as a human right (International Commission on the Futures of Education, 2020). This demands that teachers across the globe become skilled in the use of digital technologies. The African agenda repeats this focus on teachers' technology capabilities, alongside the need for innovative digital approaches in teacher education and professional development in Member States (African Union, 2022). Workshops and the survey conducted for this research confirmed technology as the stand-out priority for “high-quality” teacher education; experts agree effective use of technology is not widespread, either in pre-service teacher education or CPD. Current data shows low levels of teacher digital skills, and limited focus on the use of digital technologies in teacher education programs. This is despite the proven ability of digital technologies to improve equity, quality and efficiency in teacher education through provision of resources (including open resources), support to professional communities, and enabling mentoring and coaching (Boateng & Wolfenden, 2022; Federal Democratic Republic of Ethiopia, 2025).

Access to digital tools is increasing rapidly across the region. Recent data indicates approximately 42 percent of the adult population in sub-Saharan Africa uses mobile broadband, and only 15 percent of the population are not covered by mobile broadband networks (GSMA, 2025a). Figures for educators are hard to ascertain, but most teachers have access to smartphones. However, the cost of data is still relatively high compared to other regions (GSMA, 2025a). This can deter teachers from using their own devices for professional learning,

and points to the need for specific data packages for teachers, alongside reliable wireless networks at schools and institutions engaged in teacher education. At an institutional level, access to devices and connectivity is currently highly variable across the continent. In addition, there are significant differences in internet access and use between rural and urban areas and between men and women including teachers (GMSA, 2025b). The African Union's (2022) "Digital Education Strategy and Implementation Plan" aims for at least half the region's schools to have reliable and affordable high-speed internet access by 2027, along with provision of digital devices to at least 50 percent of teachers, expanding to all teachers by 2030. It will be important that that roll-out does not reinforce existing inequalities in access and ownership of digital devices and connectivity.

However, access is not the entire story. Intertwined with issues of access are specific issues inhibiting greater integration of digital technologies into teacher education: access itself does not guarantee use in teacher professional learning (Okoed, 2023). Most critically, many teacher educators have weak appreciation of how digital technologies can support teacher learning, leading to an absence of modelling by teacher educators and little purposeful scaffolding of student teachers' use of digital tools from everyday use to pedagogic use – an important motivator for student teachers (Buckler et al., 2021). Furthermore, many countries lack ICT competency measures for teachers despite the existence of UNESCO's (2018) "ICT Competency Framework for Teachers" (UNESCO, 2018).

Promising initiatives and practices

Digitally-enabled teacher education requires action at multiple levels of the system, as illustrated below. It is rarely possible for teachers to engage sustainably in digitally-enabled professional learning without facilitative policies. Nor can teacher educators scaffold effective professional learning for teachers without adequate opportunities to develop their own digital competencies.

Integrating digital technologies in education policy and country-level programs

Many countries in sub-Saharan Africa are focusing on building an education system that integrates technology in teacher education. Kenya's "Vision 2030" prioritizes building technology infrastructure in 78 sub-locations, and strengthens technology connection to 886 public schools using public funding. It also identifies national universities as centers of learning, and includes digital literacy as a core competency in pre-service and CPD, especially in STEM areas (Republic of Kenya, 2021). Uganda's Ministry of Education and Sport's (2024) "Digital Agenda Strategy 2024/25 - 2030/31" emphasizes integration of digital technologies across the education space, including in teacher education. In Ethiopia, coordinated by the ICT Directorate in Digital Education at the Ministry of Education, all schools are being connected to SchoolNet.¹⁶ Additionally, the 2023 "Digital Education Strategy and ICT in Education Policy" emphasizes the development of teachers' digital literacy and skills as a major pillar in teacher education, harnessing the Technological Pedagogical Content Knowledge Framework (Federal Ministry of Education, Ethiopia, 2023). In Ghana, the 2017 "National Teacher Education Curriculum Framework" highlights developing teacher competencies to harness digital technologies (Ministry of Education, Ghana, 2017).

16 Country example given by expert in engagement workshop.

National education ministries are also working in closer collaboration with international partners, such as the World Bank and UNICEF, to ensure that technology integration is relevant and contextualized to the needs of teachers. In Tanzania, for example, development partners work in partnership with the Government to implement the national MEWAKA program. This uses a range of technologies in school-based CPD, aiming to improve teachers' classroom practice (Koomar et al., 2024). Other countries are implementing large online platforms through which teachers select and access curated CPD offerings, e.g., [Teacher Portal Ghana](#).

Improving infrastructure access

Alongside policies which legitimize and promote the use of digital technologies, it is important to tackle the issues of intermittent power supplies and the cost of data. An increasing number of countries are organizing zero-rating agreements with mobile phone companies for education personnel (e.g., Ethiopia, Kenya, Lesotho and Tanzania with Safaricom). When this is combined with mobile solar chargers and other low-cost solar solutions, such as decentralized solar photovoltaic, teachers can begin to integrate digitally-enabled learning into their professional lives and practices (European Commission, 2025).

In contexts where mobile coverage is limited, the use of low-cost pre-loaded digital devices in schools or local teacher centers enables teachers to access professional learning resources. The Sopala program (in Ghana, Kenya and South Africa) uses low-cost technologies (Moodle boxes, Raspberry Pi devices and teachers' own phones) to provide AI-driven courses to teachers in remote areas (McGuire et al., 2024).

Promising practice – Use of Raspberry Pi computers in schools

One of the unique programs that has focused on integrating technology in school-based learning and teaching is the Zambian Education School-based Training (ZEST). This is a collaboration between the Zambian Ministry of General Education, the Open University and World Vision. Since 2017, the program has been supporting teachers to implement Zambia's updated curriculum to strengthen learning outcomes and quality for learners in school (Gaved & Hanson, n.d.).

In Zambia, access to teaching and learning resources is limited by high costs, related to internet connection and access to smart devices (Republic of Zambia, 2023). In response, the project uses Raspberry Pi computers – low-cost, battery-powered servers pre-loaded with digital content – in schools with low-connectivity. Teachers connect to the Raspberry Pi on their mobile phones to access contextualized CPD support and diverse resources for their classroom needs (Stutchbury et al., 2024). Schools are trained on how to maintain the server through their selected school champions, who are also fellow teachers, to ensure a user-friendly approach and sustainability. Teachers work collaboratively, and actively participate in adapting and contextualizing the resources to their needs and for the learners. Through this collaboration, teachers share their reflective voices in feedback sessions.

In pre-service teacher education, TTCs are being connected and equipped with a variety of technology equipment to enhance program quality. In Kenya, 40 TTCs are being equipped with ICT laboratories, including virtual observatories linked with local schools. This enables trainee teachers to remotely observe experienced and skilled teachers practice at local schools, removing the need for travel and school disruption.¹⁷ In the absence of robust internet for synchronous observation, educators on a pre-service distance learning program in South Africa are deploying 360-degree cameras to schools in remote areas. These enable student teachers to record details of their teaching practice and then share files with their mentor/supervisor (Cross et al., 2025).

Implementing cost-effective, locally tailored, digitally-enabled professional learning to address diverse teacher needs

As discussed earlier, regularly updating TPD and associated resources to match teachers' professional needs is essential. This process can be efficiently facilitated through the use of OERs: offering the potential to streamline contextualization, personalize materials and learning experiences, reduce the cost of creating new versions, and foster consistent, scalable professional development.¹⁸ Such processes can now be undertaken by generative artificial intelligence (AI) tools, enabling personalized learning pathways for the individual teacher, including assessments, and adapt and scale content across multiple languages and localities in forms appropriate for each context (UNESCO, 2024).

Promising practice – STEPS: Science, Technology, Engineering and Mathematics Teacher and Student Education for Primary Schools with AI and OER

Working with government partners in Benin, Cameroon and the DRC, STEPS is responding to primary school teachers' identified professional learning needs to improve their skills and confidence in teaching STEM subjects. STEPS is adapting existing OERs (Siyavula, Ukuganda and Core Knowledge) and creating new OERs, to create a comprehensive set of complementary resources for teacher and pupil learning.

Both processes (adaptation and generation of new OERs) used AI tools (prompts to ChatGPT and Anthropic), combined with human experts reviewing the outputs at each key stage. Key learnings from this project include the use of a structured lesson template for the AI, along with precise, detailed prompts and curated quality assured source materials (Chickering, 2025).

However, there are currently few guidelines or policy positions on the use of AI in teacher education/schools. Ethiopia is a rare example of a country where use of AI is included in updating teacher learning programs (Federal Ministry of Education, Ethiopia, 2023), while in Ghana, teachers are aware of the AI revolution in their education engagements and how it may impact their future involvement in school.¹⁹

17 Country example given by expert in engagement workshop.

18 See [Teacher Education in Sub-Saharan Africa](#) (TESSA) for more information.

19 Country example given by expert in engagement workshop.

Harnessing teachers' own devices and social messaging platforms (low-tech solutions)

Teachers are reported to be familiar with WhatsApp or a similar social messaging platform.²⁰ This offers an at-scale base for teachers to access information, collaborate with their peers and experts, share materials, engage in formal CPD programs, and undertake assessments (Von Lautz-Cauzanet & Buchstab, 2023).²¹ In Lesotho, WhatsApp is helping teachers to stay updated within the education system; in the eastern part of the DRC where there is a conflict, it is used for CPD through the sharing of audio files.²²

WhatsApp extends into areas that are traditionally hard to reach: teachers in remote rural areas; those working in conflict zones, such as areas of the DRC (Motteram et al., 2020; Kisakye et al., 2024);²³ and those teaching in isolation in single-teacher multigrade schools (Motteram et al., 2020). WhatsApp and other social messaging platforms offer a channel for emotional support and language development, for teachers struggling to handle diverse groups of learners in addition to subject pedagogy. In both formal and informal learning, such tools enable self-paced learning, allowing teachers to participate whenever it is convenient and necessary, giving them time to reflect (Heywood et al., 2022).

Promising practice – WhatsApp Chat Box supporting CPD in Rwanda

The Chat Box was integrated in the education mentorship and coaching for school-based mentors and education sector inspectors, as well as for STEM and subject leaders. The Chat Box provided an interactive platform for teachers, who used it to find relevant links to course content to deepen their learning. The participants found it helpful in providing reminders and motivational notes for them to complete the course, and were very satisfied with WhatsApp learning resources (Pieck et al., 2021).

However, the use of mobile phones for teacher learning is threatened by policies which prohibit students from using mobile phones in schools, such as in Ghana²⁴ and Kenya (Janberu, 2025). While these policies are focused on students, they may inadvertently end up limiting teachers' easy access to essential practice-based CPD, as teachers will be expected to model behaviors that are consistent with what they are expecting from students.

20 Confirmed by country experts in engagement workshops.

21 Also confirmed by country experts in engagement workshops.

22 Country example given by expert in engagement workshops.

23 Also confirmed by country expert in engagement workshop.

24 Country example given by expert in engagement workshop.

Strengthening digital skills and leadership through collaborative engagement

Collaborative learning platforms in multiple countries are supporting teachers to integrate ICT use in their practice. However, initiating the use of digital technologies can present significant challenges, especially for experienced teacher educators. In Zimbabwe, teacher education institution technicians are hired to support lecturers with low digital skills on the use of technology – “just in time” personalized learning. In Lesotho, informal support is commonly given by digitally-skilled teacher trainees to their peers and lecturers.²⁵

In South Africa a more formal initiative – the C-Delta platform – was developed to effectively empower teachers, educators, learners and institutions in the use of technology. The platform provides virtual and face-to-face training in ICT-mediated pedagogy and teacher leadership, alongside a reflective space where educators rethink their ICT practices and needs, and develop joint innovative decisions that promote ICT within their learning communities. Participating schools select a representative to enable context-based ICT for their institutions, who provide digital mentorship and coaching. The program is gender-responsive, with a focus on female teachers (Mishra, 2025).

²⁵ Country examples given by experts in engagement workshops.

Calls to action and policy considerations

Calls to action

As a conclusion to this White Paper, we outline the following calls to action to African governments:

Overarching call to action: Ministries of education and authorities regulating teaching should prioritize the updating and implementation of teacher education legislation, frameworks, policies and strategies, and institutionalize periodic monitoring and evaluation mechanisms to hold implementers accountable. This builds on one of the recommendations from the UNESCO (2025a) World Summit on Teachers “Santiago Consensus”, which focuses on implementation.

*“We call for the swift, full, and effective implementation of the aforementioned priority actions, and encourage each Member-State and participant in the present Summit to adopt and **implement without delay** in accordance with their national circumstances, the Recommendations of the United Nations Secretary-General’s High-Level Panel on the Teaching Profession to help address the global teacher shortages, by investing in attractive conditions of employment, **providing teachers with the support, professional autonomy and accessible opportunities for continuous professional development they need to meet the demands of rapidly changing education systems and achieve SDG 4.**” (UNESCO, 2025a, p. 7)*

Call to action – coherence: African countries should align their national teacher education policy with the African Union (2019a, 2019b, 2019c), continental teacher frameworks on teaching standards and competences, teacher qualification, and professional regulation of teaching. These frameworks ensure coherence and harmonization of pre-service teacher education and CPD.

Call to action – relevance: African countries should adopt practice-based teacher education, including stronger school-college/university and other TPD provider partnerships, in order to improve the relevance and quality of teaching.

Call to action – equity: Education authorities of all African countries and development partners should take a GEDSI-mainstreaming approach to CPD, to ensure all teachers can participate fully.

Call to action – technology: Governments in Africa should ensure they develop policies for the use of AI in Education, to guide TPD designers and providers in utilizing these tools in teacher education.

The African continent is home to 54 countries, which each have unique TPD systems that have evolved over decades. While there are common elements across many of these systems, each system is at a different stage of maturity across core elements, as evidenced by the promising practices highlighted across the four themes of this White Paper, drawn from a variety of countries.

Policy considerations

Recognizing the unique context of each country, this White Paper proposes six policy considerations. It is important to look at these policy considerations as building on what already exists in each country and looking to strengthen it further.

Policy consideration 1: National ministries of education should develop and adopt a national framework for teacher education.

Africa has a checkered landscape of teacher education (pre-service and CPD), with disparate programs developed and implemented by a multiplicity of stakeholders. This makes coordination and quality assurance difficult, largely falling outside the continental frameworks and UNESCO's (2019) "Teacher Policy Development Guide". Therefore, ministries of education and national teacher regulatory authorities should work jointly to develop a comprehensive national teacher policy, as well as national frameworks for pre-service teacher education and CPD, ensuring that these are aligned with the African Union continental frameworks, meet national contexts, and are adhered to by all service providers. National teacher regulatory authorities (or, in their absence, teacher certification and licensing departments of the ministries of education) should further accredit CPD programs and service providers, develop a robust CPD credit system, and use CPD credits as part of the requirement for the advancement of teachers and school leaders along the career stages/pathway.

Policy consideration 2: Government policymakers should ensure the professionalization of teachers through legislation and institutionalization of all CPD.

Evidence shows that countries with comprehensive legislation and a dedicated institution for the regulation of teaching have better control of the CPD content, quality and processes. Therefore, for countries without a comprehensive law for the regulation of teaching, ministries of education should: enlist the support of the national Cabinet and Parliament to pass a law; and establish a dedicated institution for teaching regulation. These two actions will facilitate CPD quality assurance, access, and utilization of CPD credits for the professional career pathway.

Policy consideration 3: Countries that already have teacher education frameworks and policies in place should review these, in relation to equity, relevance and coherence (between pre-service and CPD).

Despite the availability of teacher education frameworks and policies in some African countries, our findings showed several implementation challenges. To address these, it is recommended that African countries with existing TPD frameworks and policies review them, taking into account issues of equity, relevance and coherence (between pre-service and CPD). Countries without TPD frameworks and policies should develop a comprehensive teacher policy²⁶ that treats equity and inclusion as one of the dimensions, while also mainstreaming equity and inclusion across all other dimensions.

Policy consideration 4: National ministries of education and teacher education providers should ensure teacher education curricula has strong relevance to the diversity of classroom contexts and teacher needs.

Findings from the survey underscore the importance of strengthening the connection between teacher education curricula and real classroom experiences. This was ranked highest by the experts who participated in this study. TPD content should be firmly rooted in teachers' daily classroom realities and closely aligned with their actual teaching environments.

The rural-urban divide should be a key consideration for ensuring relevance, and equity and inclusion. Our research found that large class sizes, a different home language to the language of instruction, and issues related to climate change were commonplace in rural areas, though also present in some urban areas. In conflict-affected areas and areas with large numbers of refugees, particular consideration should be given within CPD to the language of instruction, curriculum orientation, and mental health and psycho-social support, alongside pedagogical instruction.

Policy consideration 5: Education authorities in Africa should leverage a range of contextually appropriate digital technologies and open practices (ODL/OERs), to enable all teachers to participate in practice-based quality TPD.

More and different digital technologies are becoming available to teachers and teacher educators across the region. These have tremendous potential for quality TPD, through facilitating social learning, mentoring and coaching, and access to quality resources – but their use for professional learning is often hampered by lack of infrastructure, issues of power and affordable data, limited digital competencies, and strongly held beliefs or orientations. These challenges can be greatest in rural areas, for particular groups of teachers, and for those working in refugee settings. Critically, these challenges are constantly changing as environmental conditions evolve; what works in one context at a specific time may not work under different conditions. Teachers are frequently creative in overcoming these challenges, through their innovative use of locally available resources and tools such as digital communication platforms.

Governments and TPD implementers should regularly gather feedback and experiences from teachers to inform choice of ICTs and adaptations in resources and programs. This dynamic, adaptive approach can improve quality, equity and sustainability in TPD through the sharing and scaling of school-level innovations, alongside other adjustments which respond to current reported barriers (e.g., enabling greater access to less expensive data through agreements with telecom companies/partners, and the development of guidelines on

26 For more information, see UNESCO (2019) "Teacher Policy Development Guide."

new tools such as Generative AI). The latter is already being extensively utilized by many teachers, but risks being used inappropriately or ignored completely in the absence of clear guidance.

Policy consideration 6: Ministries of education should take the lead in developing collaborative networks with all key stakeholders working on TPD, to improve communication and dissemination channels on national TPD frameworks and policies to ensure TPD programs are responsive to the needs of teachers.

Across the continent and in individual countries, there are a range of existing frameworks, policies and strategies linked to different aspects of TPD. However, these are not always widely known about by different teacher education stakeholders, resulting in only partial rollout and inconsistent implementation. The 2025 “Santiago Consensus” identifies as a key priority the need to:

“Recognize teaching as a collaborative endeavor and promote and foster collaboration across and within teacher training and education, as well as teacher professional development, providing ample opportunities for teaching personnel to co-design curricula, education materials and assessment systems, and to engage in professional development and lifelong learning throughout their careers.” (UNESCO, 2025a, p. 5)

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