

TEACHING IN THE DIGITAL AGE: ESSENTIAL ATTITUDES, SKILLS AND COMPETENCIES EXPECTED OF EDUCATORS IN SUB-SAHARAN AFRICA

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Abstract

The rapid spread of knowledge and widespread deployment of digital technology have transformed education in the world. Yet, the African continent faces distinct constraints as identified in the paper and grapples to meet up with the evolving educational ecosystem. The purpose of the position paper is to create an awareness that the model of teacher training and professional development that has been used to produce teachers is no longer effective in the changing world. Secondary data were used with the review of some journal and book publications. It is not about theoretical knowledge anymore; there is need for teachers to develop specific sets of attitudes, skills and competencies. Some vital attitudes were highlighted such as humility, patience, kindness, firmness, diligence, discipline, commitment to duties, being a good listener, considerate and cheerful personality. The paper pinpointed some key skills such as digital literacy, critical thinking and collaborative problem-solving that teachers should have and transmit to the learners. Some competencies were discussed such as time management, digital proficiency and innovation, organizational ability, emotional intelligence, lifelong learning and professional development, all essential for thriving in diverse and often resource-limited educational settings. While it recognized systemic limitations such as poor infrastructure, use of outdated teaching methodology and policy shortcomings as set-backs, the paper concluded that it is essential that teachers participate in ongoing professional development and for governments to foster supportive environments through enhanced budget. The paper suggested that stakeholders should adopt models that worked in educationally advanced nations.

Key words: 21st Century education, Pedagogical attitudes, skills and competencies, Digital Literacy, Sub-Saharan Africa

Introduction

Africa is a region blessed with a youthful population, beacon of hope and redolent with resources for the socio-economic emancipation of the populace. This population looks up to educators to guide them through the complexities of a rapidly changing world. Within the vibrant ecosystem of the region exists the intersection of rich cultural heritage, contexts, expected outcomes and challenges for educators to enable the navigation of the 21st century education dynamics (Alam & Mohanty, 2023). As the region strives to actualize the Goal-4 target of Sustainable Development Goals (SDGs) hinged on inclusive and equitable education for all, it becomes necessary for educators to pursue transformative experiences (UNESCO, 2024). The transformative experiences being advocated in this position paper are such that foster critical thinking, problem-solving skills and creativity amongst citizens. The unique context of Sub-Saharan Africa demands a tailored approach to teacher development targeted at diverse priorities and aspirations based on her socio-cultural, economic and linguistic peculiarities (Mitchell et al., 2024). Ultimately, the aim sought to identify essential skills, attitudes and competencies expected of educators in Africa that can inspire and shape the destiny of the future generations.

The argument projects educators as veritable agents of change endowed with a sense of purpose and commitment to social justice. It is a fact that educators give sense of direction to nations and individuals because products of educational institutions occupy positions in various offices and are the drivers of national policies. When they are poorly trained, the society suffers in different ways. For instance, if those who train engineers are not expert educators, the lack of professionalism would be evident in engineering practices. Digitalizing teacher training enabled by relevant ICT tools and gadgets would enable teachers in this era to be skilled and proficient in instructional delivery with improved learning outcomes (Mukhtar et al., 2020).

This paper argued that to truly enhance teaching and learning in Africa, it is necessary to rethink who a teacher is. This begins with examining the core values that shape a modern educator's approach. Next, it delves into the vital skills teachers need to develop in the digital world. Also, it discussed the key attitudes and competencies needed for creating meaningful learning experiences that resonate with the African context. Among the objectives is to offer a framework that empowers African educators to become an agent of positive change and sustainability. The quality of education in a society is intertwined with the calibre of its teachers. Teacher quality encompasses competence, sensitivity, and motivation which are crucial in yielding remarkable outcomes in schools (Annan, 2020). Theories and principles in education are meant to be practiced in the classrooms with teachers being the agents of transmitting learning experiences (Mukeredzi & Nyachowe, 2018). The million-dollar question is this: is it possible for teachers to establish a link between theories/ principles and classroom experiences? In what ways would teachers in the African setting sustain the interests of learners in the lesson delivery and ensure optimum learning outcomes? These and many other puzzles are seeking for responses to change the educational landscape of the African nations.

Conceptual Clarifications

African Education Quagmire

Educational systems in Africa have frequently grappled with scarce resources, disjointed teacher training, poor infrastructure, limited access to digital devices/ gadgets and the impacts of colonial teaching methods. Classrooms are sometimes made up of unsettled learners that have been uprooted and transplanted due to tribal/religious conflicts, insurgencies, diseases, climate change problems, food crisis, socio-economic downturn and political upheavals. This results in overcrowded, underfunded and disorganized learning environment (Osuji & Taiwo, 2019). Meaningful transfer of learning, conceptualization and retention become difficult in this kind of setting. Many children with great potential turn out to be average performers or less. These challenging circumstances demand the services of teachers that are not just knowledge providers but also adaptable, passionate, resilient, and emotionally intelligent professionals.

Lack of articulated policies, implementation problems, poor investments in digital infrastructure and faulty teacher-training programmes are obstacles to the development of high-quality education in Africa (Enyiaz, 2022). Public education systems do not prioritize integrated digital skills to cultivate a workforce that is ready to emancipate Africa from colonialism and neo-colonialism. Some teacher education training programmes in Africa and Nigeria do not include problem-based approach meant to develop critical thinking, analytical reasoning and creativity skills in potential teachers. When teachers are trained without the ability to think, visualize problems from different perspectives and come up with workable solutions, raising brilliant students becomes an uphill task (Azanza et al., 2024). This calls for strategic modification in the training and re-training of teachers. When teachers fail to perform their role effectively, society suffers. Most governments in Africa show lack of political will to invest in contemporary teacher education model as obtained in Finland rated among the best for teacher preparation and professional development. Teachers, for instance, have no capacity to teach students ICT skills if not incorporated in the teacher educational training schemes (Ikwuka, et. al., 2020). When teachers are introduced to relevant skills, it is natural for them to transmit knowledge using the same skills, as pointed out by Adebajo & Kanu (2025). These skills are to be learnt, mastered and taught.

Many teachers in Africa cannot use classroom technology (e.g. interactive boards, virtual and augmented reality tools etc.) to teach due partly to lack of exposure to the skill of using them and partly due to lack of access to the devices (Osuji & Taiwo, 2019). Corruption is a big problem also. Often, funds that are raised and meant to develop education in Africa are diverted and shared by those at the helm of affairs. Donor agencies have been disappointed in the past due to abuse and misappropriation of funds raised for projects that never saw the light of day. The education woe of Africa is an African problem that can only be addressed by African educators. Nevertheless, amidst the corrupt systems exist few individuals, teachers, concerned educators and educational institutions that are honest and determined to change the narrative and bring about a positive change.

Digital Era and Teaching-learning

This review sheds light on how attitudinal openness, digital skills, and a well-rounded set of competencies all intertwined are essential for the transformation of African education systems for relevance. To truly harness the advantages of digital teaching and learning, the focus should be on capacity building, supportive policies, and enhanced infrastructure. It is proposed by Janssen et al. (2013) that digital literacy uses technology and involves understanding important issues like data privacy, intellectual property, cyber security, and the essence of ICT to society. This viewpoint is in tandem with digital competence frameworks that emphasize professional engagement and ongoing innovative practices for sustainable development. It has become an imperative to incorporate digital tools into teaching, and requires skills in managing digital platforms, curating online content, spotting plagiarism, and utilizing multimedia resources to enrich learning experiences (Mansur, 2020).

The digital age has truly transformed educational eco-systems around the globe, including sub-Saharan Africa. For educators to effectively operate in this era, they need to possess certain attitudes, skills, and competencies (Adebanjo & Kanu, 2025). Having a positive attitude towards digital literacy and ICT skills is essential for progress in the digital African education era (Ikwuka, et. al., 2020). In the digital era, students are bombarded with information, much of which is unverified. Therefore, there is need for teachers to go beyond simple rote memorization to foster critical thinking, analytical ability, evaluative mindset and capacity to synthesize information from a variety of digital sources. This approach resonates with Biesta (2013) perspective on teaching as a practice that demands thoughtful, context-aware judgment rather than just applying "what works" mechanically. To cultivate these essential skills in themselves and their learners, teachers require training in problem-based learning strategies (Biesta, 2013). It is emphasized that, while knowledge about 'what works can inform what happens' in classrooms, it can never replace judgment about what needs to be done. Precisely, it is this aspect of teacher development that is lacking in some teachers in contemporary times.

While technology serves as a powerful tool, its true potential manifests when paired with creative and innovative teaching methods (Mansur, 2020). In a digital classroom, for instance and as affirmed by OECD (2025), crafting experiences such as the flipped classroom model enable students explore lecture contents on their own online, allowing precious class time to be used for collaborative problem-solving, lively debates and hands-on projects. Incorporating gamification elements such as badges and interactive quests have the capacity to turn learning into an exciting and inspiring experience (Anikweze & Kanu, 2025). Project-based learning, supported by digital collaboration tools, empowers students to tackle real-world problems together thereby bringing out the teamwork and analytical skills in them. Therefore, the ideal teacher in this digital age acts as an instructional designer who continually situates learning experiences that are both informative and genuinely engaging (Mansur, 2020; OECD, 2025).

Teachers need emotional intelligence to be able to cope with certain situations. Subtle signs that show learners are struggling, whether due to digital fatigue, lack of engagement or personal deficiencies need to be ascertained or unravelled quickly by the educator. There is need to

exhibit empathy, patience and consistent encouragement for a supportive and inclusive virtual learning environment. In that way, learners have sense of belonging, feel acknowledged and motivated to be a part of the learning discourse (DTK Ng et al., 2023). The educational system world over has become dynamic with demand on the part of teachers to stay relevant and updated on curriculum changes, technological innovations, creativity and best practices. The evolving educational landscape of the Sub-Saharan Africa requires teachers that are adaptable, innovative and committed to students' progress. The need for teachers to adjust to divergent students' needs, abilities and learning styles have become intense in addition to increasing need to collaborate with their colleagues, parents and communities for progress and sustainability (Ikwuka, et. al., 2020).

Concepts of Skills, Attitudes and Competencies for Educators

These skills as stipulated by Janssen et al. (2013) and affirmed by Karacaoglu (2025) highlight pedagogical skills, subject-matter expertise, communication skills and technological skills. Pedagogical skills involve the capacity of teachers to design and implement engaging lessons, manage classrooms and assess learning experiences by integrating technology and differential instruction (Osuji & Taiwo, 2019). Communications skills have to do with teachers' language proficiency and cultural awareness for effective interaction with students, colleagues and parents (Karacaoglu, 2025). Technological skills according to Azanza et al. (2024) involve the teachers' capability of leveraging digital tools for teaching, learning and assessment purposes. The competencies expected of teachers in the contemporary times as observed by Mukhtar et al. (2020) include lesson plan preparation, classroom management, assessment and feedback alongside collaboration and leadership. Lesson plan preparation or lesson planning as observed by Ainabor (2024) pertains the capacity of the teacher to design and develop high quality, logical, coherent and engaging lessons in preparation for result-oriented teaching-learning. The ability of the teacher to create and maintain a productive and conducive learning environment entails classroom management; coupled with the ability to design and conduct assessment with the provision of constructive feedback (Annan, 2020). Collaboration and leadership involve working with colleagues, leading initiatives and contributing to the overall improvement in learning outcomes and school growth (Mitchell et al., 2024).

The case of Sub-Saharan Africa regarding these concepts is shaped by the unique challenges faced by teachers in the region and the opportunities available to them (Ainabor, 2024). Skills for teachers in the region must be contextualized due to some factors such as limited working resources and multiplicity of local languages alongside colonial languages. Teachers are compelled to use local contexts, cultures and languages incorporating local examples and indigenous knowledge (Alam. & Mohanty, 2023). In terms of attitudes, teachers in the African region would have to value local cultures and traditions, build engaging and healthy relationships with local communities and stakeholders, cope with challenges such as large class sizes, inadequate infrastructure and scarce resources (Annan, 2020). Concerning competencies,

inclusive education that supports diverse learners and those with disabilities or disadvantaged backgrounds must be imbibed by the teacher (Osuji & Taiwo 2019). Continuous professional development which seeks opportunity for growth, innovation and collaboration is a ‘can’t help’ situation; plus leadership and advocacy to drive change and cooperate with colleagues.

Theoretical Framework

The Social Cognitive Theory of Albert Bandura propounded in the 1960s as Bandura’s social learning theory, expanded and renamed Social Cognitive Theory in 1986 is the theoretical framework upon which the concepts of skills, attitudes and competencies are hinged (Nabavi & Bijandi, 2012; Bandura’s Bobo doll experiment, 2012). This theory according to May-Varas et al. (2023) emphasized that learning be done through observation and interaction, skills and attitudes be developed through modelling and feedback with importance laid on confidence in one’s capability. The theory posits that people are not just influenced and shaped by the environment, they are active participants in the occurrence within the environment. Social Cognitive theory could be applied to teacher development in the Sub-Saharan African region through observational learning of peers, mentors/ experienced educators in workshops and peer coaching (Mitchell et al., 2024). Teachers model classroom management and culturally sensitive behaviours and attitudes for students and colleagues to emulate. Specific challenges in classrooms such as scarce resources, large class sizes and cultural nuances in teaching-learning could be tackled through social persuasion and by teachers working on their self-efficacy and building their confidence level (Mukeredzi & Nyachowe, 2018).

Essential Attitude for Teaching and Learning in sub-Saharan Africa in the Digital Era

Attitude is a psychological construct that influences thoughts, feelings, and behaviours (and in this context) related to education. Teachers’ attitudes toward teaching-learning and towards the use of ICT have great capacity to influence what learners learn, what they retain and what they transfer into meaningful use in the real-world (Ikwuka, et. al., 2020). Positive attitudes have linkage with greater engagement and success in learning, while negative attitudes lead to disengagement and lower performance (Kanu & Adejoh, 2018). When teachers display positive attitudes, learning becomes fun, engaging and inspiring. Positive attitudes could help learners form a bond of connection and trust leading to instructional delivery being appreciated. The drive to strive and ensure that all the learners are carried along during instructional delivery is largely dependent on the teachers’ attitudes.

Some qualities that should distinguish teachers in the digital era are captured succinctly in this acronym - TEACHER. The acronym ‘TEACHER’ should stand for: T- Trustworthy, E- Encouraging, A- Approachable, C- Caring, H- Helping, E- Enthusiastic and R- Reliable. A good teacher is naturally expected to possess and display the following qualities: patience, kindness, mercy, firmness, friendliness, diligence, discipline, commitment to duties, and teachable. Others

include being open to and readiness to accept correction (open mindedness), a good listener, considerate and a cheerful personality. Rude, arrogant and nasty teachers do not fit in with the digital age.

It has become evident that a few teachers who lack the relevant skills to teach are no longer relevant in the profession in some parts of the world (Ainabor, 2024). The reason is due to the rapid transformation in the profession. Many nations are standardizing teacher education and teaching in ways that those who cannot innovate are not finding it comfortable to remain on the job. It is not out of place to find incompetent graduate teachers leaving the profession to be employed as security guard in some organizations. Africa should not be left behind in digital teaching and learning. If students are poorly taught, they would have little or no chance of becoming outstanding. And where to begin the change is in teacher education. The digitalization of learning and teaching could transform the learner into a global achiever and make the teacher an outstanding educator.

Essential Skills for Teaching and Learning in sub-Saharan Africa in the Digital Era

Livelihood in a globalized world calls for products of educational systems that integrate generic skills needed for creativity, productivity and national development. As enunciated by Azanza et al., (2024), these skills include the following: decision-making skills, problem-solving skills, autonomous-thinking skills and diffused-thinking skills. Others are effective communication skills, computer-manipulation skills, interpersonal relation skills, and independent and autonomous learning skills. Teachers in training and teachers on the job who learn and apply these skills are more resourceful than their counterparts whose training is dependent on lecture notes and textbooks that are more often theoretical than practical. For educators in Africa and around the world, mastering these diverse skills is essential for transforming the classrooms into dynamic, future-ready learning environments where every learner is availed of opportunity to flourish. Imbibing the skills such as critical thinking, teamwork, problem-solving, and decision-making is essential for both teachers and students in tech-savvy educational settings. The skills go beyond just technical know-how but include soft, cognitive and social skills necessary for thriving in a digital landscape and spiced with ethical considerations (Azanza et al., 2024).

Foremost in the list of essential skills is technological prowess and digital proficiency (European Centre for Development of Vocational Training /CEDEFOP, 2025). This transcends knowing how to use a computer to having a solid grasp of the digital world. For instance, 21st century teachers ought to be skilled at using Learning Management Systems (LMS) such as Google Classroom or Moodle to schedule and facilitate their courses, share resources/ materials, and keep communication flow active (Mansur, 2020). Note the difference between ‘Moodle’ and ‘Module’. There is need for knowledge of how to create and curate engaging digital contents, harness instructional videos, interactive simulations, multi-media apps/ platforms and podcasts to meet the variegated learning styles of different learners (Tulsiani, 2024). Of utmost importance

are teachers being able to troubleshoot, tackle common tech challenges and ensure that learning is not interrupted by avoidable glitches.

Essential Competencies for Teaching and Learning in sub-Saharan Africa in the Digital Era

Digital competencies cover a broad range of capabilities, including digital literacy/proficiency, communication and collaboration, content creation and curation, cyber security awareness, and problem-solving and critical thinking capacity, adaptability and flexibility, data-driven decision making (European Commission, 2018; Mukhtar et al., 2020; Azanza et al., 2024). In the African context, researchers stress the importance of competencies such as managing mobile learning apps, using task management tools, creating digital content like screen tutorials and promoting online security. Nigerian teachers need these competencies to deliver lessons effectively and tackle challenges related to the digital divide and infrastructure. Adebajo & Kanu (2025) outlined some competencies needed for teaching and learning even in the digital age as follows:

Organization

Teachers must be competent organizers of learning. Without organizational competency, teaching and learning would not run smoothly. Disruptions to learning activities would be the order of the day in any disorganized classroom. If the teacher lacks organization, tasks would not be completed on schedule and with ease. The simple way to spot teachers that are not organized is to check the quality of work done and the physical workspaces of the teachers. A popular adage goes thus ‘A disorganized set of books is a sign of a disorganized mind’. Organized teachers do not find it difficult to manage personal and professional activities.

Time Management

A basic competence needed for growth in the digital era is how to manage and use time wisely. It has been noted that people do not really waste time. What happens really is to waste a portion of existence in time. Time is constant, but the teacher does not have unlimited time at disposal to waste if students must be taught and trained within a limited time. Any time wasted by the teacher may not be regained due to the fast pace of events in the world. Whether time is used wisely or not, wasting time means many things left undone and with no tangible achievement. Teachers’ time wastage means that efficiency and effectiveness are lacking.

Digital Prowess and Innovation

The teacher’s proficiency to navigate technological innovation and utilize digital devices (including new tools) that make use of essential software applications for success, both to the teacher, the learners and the employer would increase employability and productivity (Mansur, 2020). Digital competence encompasses ability to communicate, handle data, solve problems and engage in programming or data processing (Sadler, 2021).

Constant Personal, Life-long and Professional Development

The lead author had the privilege to train twenty teachers in a school in Abuja, Nigeria. It was surprising to discover that from January to August of the year, out of twenty teachers interviewed, only one admitted having read and completed about five books within the period. The job of teaching and learning is learning and teaching. If the African teacher is not consistently learning something new, the students cannot be better off. Some teachers cannot use digital devices because of lack of interest in learning the operational mode of these gadgets. Teachers who do not learn cannot be innovative. For remarkable progress to be recorded in education in Africa, there must be a paradigm shift in the mindset of teachers. Teachers must be great learners, thinkers and researchers. Ideas are generated through thinking. Teachers must learn to think out of the box and think without restriction and put the mind to use through maintaining a decent imaginative power. No product can be invented without putting the mind to gainful work.

Emotional Intelligence: Many teachers in Africa teach out of anger and frustration. The passion to teach is lacking, though they must stay on to get the monthly remuneration. Some teachers have made brilliant students hate the teaching profession owing to the sadist mentality displayed in classrooms. Great teachers do not cause a child to feel bad. Great teachers have the skills to connect with all learners. This type of teachers has the understanding that students need the help of teachers to learn, unlearn, relearn and make useful progress in their academic and life's pursuits. Teacher should not cause a child to feel bad in class. This could lead to thoughts of suicide or other kinds of trauma in the life of the learner. An emotionally intelligent teacher engages three pathways to get the brain fascinated and love to learn. These pathways include the eyes, the ears and the emotion of learners. These linkages/ routes to the brain are very important for conceptualization of learning experiences, achievement, retention and effective transfer of knowledge, skills and ethics. Children are fascinated with beautiful pictures, graphics and videos (Kanu & Agu, 2020).

Conclusion

The paper discussed the attitudes, skills and competencies needed for teaching in the digital era in Africa while pointing out the dysfunctional state and widening gap occasioned by the digital divide among nations of the world. To change the narrative, Sub-Saharan Africa needs a new breed of educators that are passionate, enthusiastic and committed to raising learners that can compete favourably at global level.

Suggestions for Improvement

The following suggestions are put forward in the study

1. There is the need for the government of African nations to invest substantially in education sector for meaningful progress and sustained national transformation. Substantial part of the national budget should be apportioned to education.

2. Educators, policy makers and other key players in the education industry should learn and adapt the model being used in nations of the world such as Finland whose teacher education pattern is regarded as one of the best.
3. Teachers should be handsomely paid (a living wage with attractive welfare package) and on time. If the teaching profession becomes lucrative, the best brains would be attracted to it and the dearth of experienced teachers would reduce drastically
4. Teacher education programmes, educators and schools all over the Sub-Saharan African region should embrace digitalization and ICT for optimum performance and improved learning outcomes.
5. Importance of continuous professional development of teachers should be emphasized.

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