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08033344750

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EDITORIAL DESK

Volume 3 of the West African Journal of Educational Administration and Planning (WAJEAP) has a total of ten articles that were the products of well researched papers presented at the international conference held in May 2024 at the Presbyterian University of East Africa in Kikuyu, Nairobi, Kenya. The conference had well over 100 participants that gathered at the ambiance of PUEA environment, which was well attended by over 25 universities across the globe including Nigeria, Serra Leone, Kenya, South Africa, Australia and University of South Alabama in United States of America. All the articles have been peer reviewed and plagiarism checks conducted on them before publication.

I, therefore, want to deeply appreciate the management team of the Presbyterian University of East Africa for making this publication a reality. All the writers and authors are congratulated for passing the stringent measures set by the guild of editors.

Congratulations to everyone, and I wish you a prosperous Christmas celebration in advance.

Prof. M. O. B. Mohammed FNAEAP,

Head, Editorial Team

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TEACHERS' PERCEPTION OF THEIR PREPAREDNESS FOR EQUIPPING PRIMARY SCHOOL LEARNERS WITH FUNCTIONAL COMPETENCIES FOR A DIGITALLY INNOVATIVE WORLD IN KENYA: A LITERATURE REVIEW

Manyatta, F. Njue Ph.D

The Presbyterian University of East Africa (PUEA), Kikuyu, Kenya. manyatta.njue@puea.ac.ke

ABSTRACT

The paper attempts to examine the level at which primary school teachers are perceived to prepare learners with functional digital competencies in a digitally innovative world. The existing literature reviewed in this paper evidences sheltering children from the digital world as a common practice in order to protect them from possible risks associated with their early exposure to technology. This approach, however, of keeping children away from digital technology rather than preparing them for it poses significant complications to their present and future lives in a considerably digital society. As such, this paper argues that effective preparation of both teachers and learners is an important ingredient in developing the competencies needed for success in the 21st century. Through a desk review of current research and reports the paper examines some of the key factors underlying teachers' perceived lack of preparedness: inadequate training, limited infrastructure about technology, and insufficient professional development opportunities. Additionally, it contemplates implications of this preparedness or lack thereof, given the emphasis that the CBC places on digital literacy as a core competency. It concludes that teachers are not well equipped to effectively prepare learners with the digital skills needed in the future. Recommendations include prioritizing teacher training and professional development regarding digital literacy among all stakeholders in education, besides improving access to technological tools and resources at schools for the effective implementation of the CBC in developing digital competencies among learners.

Keywords: functional competencies, digitally innovative world, teachers' perception, primary school learners, equipping, preparedness

INTRODUCTION

Feeling of Preparedness is a personal perception which may be influenced by so many factors but the mental perception through self-assessment is the most crucial factor. Feeling efficacious or not is a function of the mind. The Bible, which is an authoritative Christian religious book, teaches that "As a man thinks in his heart so he is" Proverbs (23:7). For example the former president of the United States of America, Baraka Obama, anchored his presidential campaign on a powerful clarion call and slogan" YES WE CAN" on which he rallied Americans behind his presidential ambitions and won two consecutive terms (Ford, Johnson, & Maxwell, 2010).

The level of preparedness empowers a person to weather so many other challenges as would be experienced by teachers as they attempt to prepare their learners for the ever-evolving digital world and integrate ICT in teaching and learning activities and at the same time train the learners to manage the digital world in the backdrop of the possible dangers and challenges involved. The world we live in is digital and we can only expect it to get more technologically complicated in future with the ever-growing digital innovations in all facets of life and human endeavours (Twohill, NicMhuirí, Harbison & Karakolidis, 2023). By the rate

at which digital innovations are coming up with such things as cloud computing and artificial intelligence, mobile banking, machine learning, internet, and robotics among other innovations, education should prepare children adequately well for them to be digitally compatible and able to competently navigate the digital world around them successfully (Kholid & Darmawan, 2023).

The future is digital and it is either we acquaint ourselves with it or be left behind and perish in digital ignorance. Digitalization of the world will continue whether we objectively embrace it or not; prepare or not. The role of the teacher in preparing learners for the fast-digitalizing world is very crucial and success in this role will always depend on teachers feeling of self-efficacy and measurable feeling of preparedness (Brown, Myers, Collins, 2021; Gillett, Stardust & Burgess, 2022). Very soon the whole of education may become digitalized where students will learn from the comforts of their homes or anywhere else, except the physical classroom, using mobile devices cloud computing platforms and ICT as happened during the covid 19 pandemic (Pokhrel & Chhetri, 2021).

Objectives

- i. To determine the level of preparedness in teachers to equip learners with the fundamental digital skills.
- ii. To assess the outcomes of teacher training programs based on the infusion of digital technology into the teaching process.
- iii. To identify how far access to ICT infrastructure influences a teacher's capacity to impart digital skills effectively.
- iv. Assess the contribution of digital literacy to the development of core skills among 21st-century learners.

LITERATURE REVIEW

This section presented works of scholars related to teachers' perception of their preparedness to equip primary school learners with functional competences to navigate digitally innovative of the 21st century. This is done under the following headings.

Theoretical framework

This study was guided by the Concern-Based Adoption Model (CBAM), proposed by Hall, (1974). The model is a representation of the process by which an educational institution adopts an innovation, and views adoption as a developmental process involving a complex interaction between an adopting institution, a user system, and a resource system. The resource system is usually a formal organization whose expert knowledge of the innovation is available to the user system. This interaction, called collaborative linkage, is ideally characterized by open communication, which allows the resource system to assess the individual user's needs and concerns, and to select personalized intervention strategies based on this assessment. The model hypothesizes that there are different, identifiable stages of concern about and levels of use of an innovation. The user system's advancement to higher levels of use and concern is a developmental process (Anderson,1997). The intervention strategies of the resource system are aimed at answering the user's concerns, arousing higher concerns, and thereby advancing the level of use of the innovation (Skare & Soriano, 2021). Preparedness is a set of actions that are taken as precautionary measures in the face of potential disasters. Being prepared helps in achieving goals and in avoiding and mitigating negative outcomes. Readiness is a discipline that needs to be cultivated and practised no different than diet and exercise (Koos, 2022).

Adults' Preparedness to Equip Children with Digital Knowledge

Literature on responsible adults' preparedness to equip children with digital knowledge and skills needed for safer navigation of the ever-growing digitalization of the world is significantly limited. Researcher opted to concentrate on the negative effects of exposing children to the digital world at the expense of empowering them with digital knowledge and skills and then letting them explore and enjoy the digital world with minimal supervision (Joustra, Quinn & Walker, 2024).

Preparedness to function in certain specific ways under specific situations and circumstances helps practitioners to weather down most of the challenges they may encounter and come out successful in achieving their goals, objectives and missions. Lack of preparation is preparation for failure in any human endeavour. Constructivists argue that well-instructed, guided and exposed learners, irrespective of age, will construct their knowledge on almost every issue or phenomenon in their living environment. Learners are different and each learner can construct new knowledge by building from the current knowledge (Perkins, 1991). Therefore, today, communication is needed more than reading and writing and only digital know-how and experience can effectively facilitate this. One of the competencies as envisioned in the CBC system of education is learning to learn where digital technology and literacy imparted by well-prepared teachers are key to the achievement of this competency.

Teacher Perception of Preparedness

Perceptions are very subjective and depend on an individual's mind and judgement. The use of ICTs in the education process has a key role in improving the quality of the school and the success of the learner and in creating new learning opportunities for the learner hence the need to have teachers incorporate the new technologies in their classrooms. Hero, (2020) observes that it would be a sheer waste of spending resources to equip schools with digital hardware and software without determining whether teachers feel prepared to put those facilities into meaningful use or not. Flexible access to resources with opportunities for formative assessment and feedback is considered essential to support learning. Equally important is the ability to extend communicative and collaborative activity beyond the classroom (Keegan, 2009).

In a fast-moving world where technology has become intertwined with our daily lives, meaning information is available at our fingertips, information overload is just one of many challenges that this technological overhaul has presented for learners from the primary classroom up to the institutions of higher learning (Gibson and Smith, 2018). Many people blame the failure to create meaningful change in education primarily on the lack of requisite facilities however Lane, (2012) observed that despite the Australian government spending billions of dollars in providing technological equipment in classrooms, four years later there was no evidence that the promised and expected revolution in education had taken place thus concluding that transformation of an education system takes more than a simplistic hardware solution. The inclusion and implementation of ICT into the classroom should not be seen as merely an add-on but should be included with purpose and meaningfully implemented based on pedagogy and intent (Fuchs, 2021).

Since teachers cannot give what they do not have effort must be made to examine and review teacher preparatory programmes and other support arrangements in the educational system, to adequately prepare them for their emerging technology-based roles (Okogbaa, 2017). The rise of smart machines and systems, the computational world, new media ecology, super structured organization, and the globally connected world have given birth to two of the most prominent changes that greatly affect literacy education in the digitally connected world. This

calls for a well-formed ability to evaluate online information and assess the credibility of the sources, and only schools and well-prepared teachers can effectively midwife such an eventuality (Silvhiany, 2019).

Now that the world has been reduced to a global village digital citizenship has become a topic of growing importance among academics and policymakers alike, at the centre of debate and theorization are the skills youth need to navigate and actively participate in the digital world (DeWitt & Alias, 2023). On a global level, a variety of stakeholders including governments, international organizations, nongovernmental organizations, and academia — have adopted the term to develop and shape formal and informal learning programs that aim to help youth address the challenges and embrace the opportunities the digital environment may present (Cortesi, Hasse, Lombana-Bermudez, Kim & Gasser, 2020).

Equipping Learners with Techno-Digital Competencies

The real world that children are exposed to and will continue to be does not cushion them from the effects of ignorance. That world simply immerses everybody into techno-digital waters without care whether one can swim or not. Consequently, teachers and other responsible adults need to be prepared for the daunting task of equipping children with the knowledge and skills necessary for survival in the digital world (Zahra, 2020). Equipping primary school learners with techno-digital skills is a worthwhile effort especially today when everything in the world assumes a techno-digital approach. Learners can often complete school without gaining exposure to real-world scenarios of digital literacy, without ever learning to be comfortable while dealing with the digitalized world and the problematic challenges it poses especially to ill-informed persons regardless of age and status; colour or race (Barlett & Fennel, 2018). For children to be successful in the digital world, they must be prepared to handle the real world and engage effectively, safely and productively both at the personal, communal or corporate level. Equipping them early with techno-digital knowledge and skills will enable them to function more effectively as they grow up (La Fleur & Dlamini, 2022).

Techno-digitally informed learners and young persons will be more proactive and proficient in their learning-to-learn activities, which require independently enquiring minds (Kastorff, 2022). Not helping the learners to acquire and develop the techno-digital skills required in the world today does not only disadvantage the learners but the society as a whole which is likely to hinder both individual and community development worldwide in the future (Sparkes-Vian, 2019).

ICT and Digital competencies

Competency may be defined as a set of knowledge, skills, attitudes, and values that are needed to effectively perform a task or a productive role. This definition involves observable behaviours that contribute to the successful completion of a task, and it implies knowing, know-how and knowing how to transfer that knowledge (Cárcamo and Muñoz, 2009). Linking this concept to ICT competencies, it can be said that the latter is a group of skills, knowledge and attitudes that are applied to the use of information and communication systems, as well as the devices that the activity involves (Sarker, Wu, Cao, Alam, & Li, 2019). People should know and be able to learn more and transfer, effectively, to live productively in a digital world and demonstrate the ability to make Web designs, presentations, databases, and use graphics software, spreadsheets, databases, online applications, e-mail and chat applications among other digital facilities (Rubach, Lazarides, 2021) in the spirit of the digital economy. The requirements for teachers and students in today's world emphasize the current

importance of ICTs and digital competencies for all for competitive living and functioning in the present world (Aypay, 2010). Competencies in ICTs can be classified as:

- a. the core competencies of digital literacy, which are related to the use of ICTs in classroom presentations and activities, and involve the use of digital tools to obtain information, and the use and development of materials obtained from various online sources (Liesa-Orús, Latorre-Cosculluela, Vázquez-Toledo, & Sierra-Sánchez, 2020).
- b. the implementation competencies, which are related to the use of skills and knowledge to create and manage complex projects, solve problems in real-world situations, collaborate with others, and make use of information and expert networks.
- c. The ethical competencies, which are related to the ethical, legal and responsible use of ICTs (Gooding, Williams & Williams, 2022). The many challenges that children and young people face with digital technology have more to do with their approach to the digital technology but not the technology itself e.g. Users of digital technology need to know that a possibility of addiction exists and develop knowledge on how to prevent themselves from getting addicted (DiClemente, 2018).

Digitally innovative world and literacy

Globalisation and demand for twenty-first-century skills have led countries to adopt Competency Based Curriculum (CBC) to prepare young people for the challenges and opportunities that world digitalization and technological innovations would pose to them, their societies and communities (Verbeke & Hutzschenreuter, 2021). Kenya embarked on curriculum reforms from content based to competency-based in 2018. The core competencies to be developed and actualized in the learners are Communication and collaboration, Critical thinking and problem-solving, Imagination and creativity, Citizenship, learning to learn, Self-efficacy and Digital literacy. Studies have reported minimal use of CBC teaching-learning approaches that would ensure or facilitate the development and nurturance of these competencies (Rupia, 2022).

CONCLUSIONS

This study established teachers' perception of their preparedness to equip primary school learners with functional competencies to navigate the digitally innovative world of the 21st century. The findings from the literature review indicate that while digital literacy is an increasingly important area, many teachers feel unprepared for integrating these skills into their teaching practices. Insufficient training for teachers, no access to the ICT infrastructure, and further professional development hamper efforts to develop such key 21st-century skills as critical thinking, creativity, and problem-solving. Such challenges require concerted efforts to enhance teacher preparation programs and improvement of access to technological resources at schools. By thus equipping teachers with the right tools and skills, they can adequately foster digital literacy and prepare learners for the demands of a rapidly evolving technology-driven world.

RECOMMENDATIONS

This study has exposed that teachers are vitally engaged in preparing learners to live in a digital world, though there are gaps in how they are prepared to teach the necessary skills for living in the digital world. In this respect, the following are suggested as ways of overcoming the challenges to ensure effective integration of digital literacy in line with the Competency-Based Curriculum:

- i. Strengthen the training for digital literacy and integration of technology in the classroom for teachers to better equip them with 21st-century education.
- ii. Increase access to ICT infrastructure at schools to ensure that both teachers and learners have the necessary tools to set up digital competencies.

- iii. Continuous Professional Development Program with a focus on digital competencies, and provide for ongoing support of the teacher community to adapt with the evolution of technology.
- iv. More effective collaboration between all stakeholders in education so that CBC can be really embedding digital literacy as part of core learning outcomes.

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