

Exploratory Research on Digital Upskilling of School Principals in a Digitalized Educational System: The Nigeria Experience

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Abstract

The paper focused on exploratory research on the digital upskilling of school principals in a digitalized educational system: The Nigeria experience. In this era wherein Nigeria and virtually every aspect of human undertaking has been digitalized. It became relevant for every individual to be upskilled so as to survive the taste of time. Upskilling permits individuals to become relevant in the academic environment. Upskilling individuals will produce limitless opportunities and enhanced educational advancement. When an individual is digitally upskilled, there is room for job enhancement. The paper pinpoints the need for digital skills and their relevancies to principals and administrators. The paper further x-rayed the areas of digital skills needed and how to accomplish these skills. Thus, upskilling entails giving our principals/administrators opportunities to gain the knowledge, tools, and ability they need to use advanced and ever-changing technologies to enhance productivity in the workplace and their daily life undertakings.

Keywords: *Exploratory research, Digital upskilling, School principals, and Digitalized educational system*

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Background to the Study

Digital upskilling is a trending and vital part of education in the 21st century where the world has gradually turned into a global village in which all human academic endeavors have been globalized. This period is marked by radical changes in socio-economic, educational, and technological advancement. The learner in this period is curious about modern trends in learning as such the traditional system of education does not fit the test of the learner in this period. Lupan and Bejinaru, (2019) observed that if we continue teaching our children the way we taught them yesterday, we would deprive them of their tomorrow. This is because the traditional learning experiences cannot stand the taste of the time in the 21st century. So, we are compelled to use digitization in our academic system.

According to Machekhina (2017) *modern generation is marked with a quality called 'speed,' and nobody has patience in learning undertaking. This assertion made the proverb that says, 'slow and steady wins the race' lose its significance.* The administrator who in most cases is regarded as a teacher, shoulder the major responsibility of imparting education to this generation, as such, he/she have to match up to the expectation of these fast-paced young citizens. Who are very curious in their quest for knowledge advancement. It is no gainsaying that information, if not conveyed properly, may have disastrous results on the part of the learner. When learners are exposed to the digital world at a very early age, it can foster learning and promote proficiency in the learning experience. However, it is advisable to note that they should also be taught to handle it properly and manage to extract the essence of knowledge available digitally. Teachers play an important role in this. Administrators/teachers of today's generation must equip themselves with the digital skills necessary to help their students become responsible digital citizens.

The term 'digital up skilling' refers to the process of equipping employees to keep them relevant and updated with the digital ways of the digital world. Digital upskilling is not limited to information and communication (IT), it involves digitalization (Prelicean and Bejinaru, 2016). Digitization is the trending term, describing the 21st century in the most precise manner possible. In this global era where unprecedented ideas are unfolding in our education industry and creating advancement that cannot be matched by lagging in terms of technology. This underscores the need for teachers and administrators to embrace digital up-skilling to enhanced digitalized education.

To the researcher, upskilling is the process of acquiring new and relevant competencies needed today and shortly Common examples of upskilling efforts include digital skills, analytics skills, and organizational transformation skills. Digital upskilling involves acquiring knowledge to think, act, and thrive in a digital world. The principals (administrators) are the building blocks of any business, and it is essential for organizations to proactively train them to undertake the digital transformation, for their personal as well as professional growth. For an organization to completely transform every facet of its business to be in sync with digital technology, its employees need to undergo digital courses.

In the words of Pinzaru (2015), digital skills are broadly defined as the skills needed to use digital devices, communication applications, and networks to access and manage

information. Upskilling is defined as helping workers adapt their more traditional skills and capabilities to modern technologies that underpin digital transformation efforts. Part of the effort in up-skilling is to provide employees not only with technical knowledge but with skills that will help them deal with continuous change brought on by digital transformation such as adaptability and collaboration. It is based on this background that the ital. the up-skilling program sought to

Gaps in Digital Upskilling by Principals

Principals are faced with some paramount digital skill gaps in the educational environment. Gaps in digital upskilling by principals imply that there is a lack of human resources having the required digital skills to manage the technological and advanced digital equipment. Major areas of digital skill gaps are:

1. The persistent rise in demand cannot be solely addressed for the old style of information processing.
2. An emerging technological advancement (globalization) amplifies the need for digital skills.
3. High costs and disorganized approaches to the traditional educational system which has created barriers to learning.
4. The quest for utilization of modern gazette in the labour market has resulted in competitiveness and business organization in the world.

How to Upskill Digitally

1. Identify your knowledge gaps. This has to do with the area where you need the skill. It is a common belief that a gap is an area where knowledge has not been fully explored. Thus identifying the gap will give a sense of direction to the problem.
2. Specify your aims and objective by setting your target goal (s) (purpose of the skill): Before you start learning anything, you need to take a step back and identify your goals.
3. Initiate the learning (Start learning).
4. Practice your skills. This is because by practicing your skill. Perfection will set in.
5. Never stop learning. This is based on Abraham Lincoln's experience who said I will keep on learning and one day the opportunity shall come.

Food for thought to Principal/Administrators

1. Despite how you may be contented, secure your career with digital skills.
2. Identify credible networking sites and learn about networking no matter how comfortable you may be.
3. Get creative with digital media devices such as smartphones, computer literacy skills (word processing, Corel draw page maker and SPSS), social media, word processing, and email and chat.
4. Look to the future and grow your digital skills.

Worthy of note is that introducing principals, administrators, teacher's students to new ways of thinking about old problems, can encourage better problem-solving, collaboration, and decision-making all of which are necessary skills for an administrator

Way of Upskilling Administrators Digitally

There are numerous ways of upskilling the school administrator digitally. The few important ones are as follows:

Online Course

Does this with learning a new language or maybe to get trained in some specific course, but have no time to cover the distance? Online courses are developed by experts who have unmatched proficiency in their specific field and can give you the experience of real-time learning by designing their online courses.

Online Exams

Digitization gave way to the online exam, making the examination process convenient for both administrators, teachers, and students.

Digital Textbooks

This is prevalent with other names like e-textbooks and e-texts, digital textbooks provide an interactive interface in which the students have access to multimedia content such as videos, interactive presentations, and hyperlinks.

Animation

This is a captivating approach in which students learn in a better manner. By offering a visual representation of the topic, students grasp the concept more. Even the toughest topics can be presented in a simplified way with the help of animation.

Other forms of digital upskilling needed by administrators include:

- i. Computer literacy
- ii. Data entry
- iii. Social media
- iv. Web-based communications and research
- v. Word processing
- vi. Email and chat
- vii. Secure information processing
- viii. Programming, web, and app development
- ix. Data science

Why are Digital Skills Important?

Moving beyond Google and application of digital upskilling using Benjamin Bloom's taxonomy of educational objective

Parviainen, Tihinen, Kääriäinen, and Teppola (2017), informed that the pandemic catalyzed an already-accelerating rate of digital transformation, where the old ways of doing things have changed drastically. The demand for digital skills was likewise impacted, as companies shifted from physical headquarters to embracing a digital mentality. While this trend had been gaining momentum for decades across all industries, today's acceleration is unprecedented. Now,

digital adoption and the respective digital skills needed to embrace the transformation are critical to landing more secure, in-demand tech careers. Those skills are essential to the survival of businesses.

Digital skills have never been more critical to business and the workforce, as demonstrated by the universal shift to digital-first interactions like remote work, online commerce, and virtual collaboration. While this change has produced many benefits, like greater flexibility for workers and removing geography as a barrier to hiring new talent, it's also resulted in the widening of an already-large skills gap. Google is a powerful tool. Students with access to a computer and the Internet can find the answers to not only simple questions but also incredibly complex problems. However, there is a significant difference between Googling an answer and understanding why. Looking at Bloom's Taxonomy, we want students to gain the deepest level of understanding when faced with a problem. Simply Googling answers does not provide students with true, deep learning. And while most students understand how to use a search engine, it is up to teachers to provide students with the additional skills to bring the answers to the next level.

Benefits of Digital Skilling to Administrators in Digitalized Education

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It helps to give a better understanding of the taxonomy of educational objectives and their applications.

Taxonomy of Educational objective is a framework for classifying statements of what the teachers want students to learn as a result of instruction. Bloom's Taxonomy was created in 1956 under the leadership of educational psychologist Dr. Benjamin Bloom in order to promote higher forms of thinking in education, such as analyzing, evaluating concepts, processes, procedures, and principles, rather than just remembering facts (rote learning). It is most often used when designing educational, training, and learning processes. Bloom's identified three domains of educational activities namely; cognitive (Knowledge); which has to do with the mental skills, Affective (Attitude); which deals with feelings or emotions and the Psychomotor or physical skills (Skills). The cognitive domain involves knowledge and the development of intellectual skills. Within the cognitive domain, Bloom identified six levels from the simple recall or recognition of facts, as the lowest level, through increasingly more complex and abstract mental levels, to the highest order, classified as evaluation. It is important to note that sometimes the same verbs appear as examples in more than one cognitive level (e.g., write, summarize, test, explain, etc.). It should be noted that the blooms

taxonomy has the old and revised edition as presented by Lorin Anderson, a former student of Bloom, and David Krathwohl who revisited the cognitive domain in the mid-nineties and made some changes as presented below.

Table 1: Bloom's Original and revised Taxonomy of Educational Objective

Original domain		Revised/new domain
Evaluation		Creating
Synthesis		Evaluation
Analysis	→	Analyzing
Application	→	Applying
Comprehension	→	Understanding
Knowledge	→	Remembering

Levels of the cognitive domain of educational objectives

The cognitive domain involves knowledge and the development of intellectual skills (Bloom, 1956). This includes the recall or recognition of specific facts, procedural patterns, and concepts that serve in the development of intellectual abilities and skills. There are six major categories of cognitive processes, starting from the simplest to the most complex: Knowledge, comprehension, application, analysis, synthesis, and evaluation represented with the acronym (KCAASE) (Eyong, 2017).

1. **Knowledge:** This is defined as the remembering of previously learned material. This may involve the recall of a wide range of material, from specific facts to complete theories, but all that is required is for the student to bring to mind the appropriate information. Knowledge represents the lowest level of learning outcomes in the cognitive domain. Examples of terms used in knowledge level are; defines, describes, identifies, knows, labels, lists, matches, names, outlines, recalls, recognizes, reproduces, selects, states etc.
2. **Comprehension:** This has to do with the ability to grasp the meaning of material and translating the material from one form to another (words to numbers), by interpreting material (explaining or summarizing), and by estimating future trends (predicting consequences or effects). These learning outcomes go one step beyond the simple remembering of material, and represent the lowest level of understanding. Key terms used are; comprehends, converts, defends, distinguishes, estimates, explains, extends, generalizes, gives an example, infers, interprets, paraphrases, predicts, rewrites, summarizes, translates, etc.
3. **Application:** Application deals with the ability to use learned material in new and concrete situations. This may include the application of such things as rules, methods, concepts, principles, laws, and theories. Learning outcomes in this area require a higher level of understanding than those under comprehension. Keywords used are; applies, changes, compute, constructs, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses, etc.

4. **Analysis:** This refers to the ability to break down into its component parts so that its organizational structure may be understood. This may include the identification of the parts, analysis of the relationships between parts, and recognition of the organizational principles involved. Learning outcomes here represent a higher intellectual level than comprehension and application because they require an understanding of both the content and the structural form of the material. The keywords used are analyzes, breaks down, compares, contrasts, diagrams, deconstructs, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, relates, selects, separates etc.
5. **Synthesis:** This refers to the ability to put parts together to form a new whole. This may involve the production of a unique communication (theme or speech), a plan of operations (research proposal), or a set of abstract relations (scheme for classifying information). Learning outcomes in this area stress creative behaviors, with major emphasis on the formulation of new patterns of structures. Keywords used are categorized, combines, compiles, composes, creates, devises, designs, explains, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes, etc.
6. **Evaluation:** This is concerned with the ability to judge the value of the material (statement, novel, poem, research report) for a given purpose. The judgments are to be based on definite criteria. These may be internal criteria (organization) or external criteria (relevance to the purpose), and the student may determine the criteria to be given to them. Learning outcome in this area is the highest in the cognitive hierarchy because they contain elements of all of the other categories, plus conscious value judgments based on clearly defined criteria. The keywords used are appraisings, compares, concludes, contrasts criticizes, critiques defends, describes, discriminates, evaluates, explains, interprets, justifies, relates, summarizes, supports etc.

Also, Create: Produce new or original work; Evaluate: Justify a stand or decision; Analyze: Draw connections among ideas; Apply: Use the information in new situations; Understand: Explain ideas or concepts; Remember: Recall facts and basic concepts.

1. **Prevention of Academic Plagiarism**

In a culture where students are constantly sharing content, they may not know what plagiarism is, let alone when they're doing it. Teachers should set clear anti-plagiarism policies at the beginning of each year.

2. **Checkmating Cyberbullying**

Cyberbullying is bullying that takes place through the use of electronic technology and is a pervasive issue in schools and online communities. And while today's students may be digital natives, they still need to be taught that social norms apply to online behavior. Resources should be in place to prevent cyberbullying and to help students who are being bullied.

3. **Accumulation of Students on The Same Platform**

With students coming in from various regions, schools and colleges are finding ways to develop an integrated solution to meet the educational needs of all students. By converting the whole of the educational system to digitization, the use of various

techniques like online courses, online exams, digital textbooks, quizzes, and e-notes are improving the quality of education for the students.

4. Connecting Students with Their Educators

With a high increase in the student population in recent times, pedagogy is being compromised. Because of that, online resources are being developed in a way that makes them always available to teachers to educate the masses. Which, in turn, improves the quality of education and increases the number of literate students.

5. Administrative Activities as an Integral Part of the Education Industry

With digital systems being prevalent in education we are experiencing different levels of ease in online education, but the administrative part is not off the table. Keeping the records of students and maintaining their attendance and roll number is a big headache, that too when the students are outnumbering the administrative heads. So colleges and schools are adopting more hassle-free computerized methods and avoiding the old manual methods of maintaining records.

Summary

Digitization (digital upskilling) has no doubt changed our education system, but we cannot say that it has diminished the value of our old-time classroom learning. Neither do we want something so priceless to turn into dust. The best part about the digitization of education in the 21st century is that it is combined with the aspects of both; classroom learning and online learning methods. Walking hand in hand both act as a support system to each other, which gives a stronghold to our modern students. Digitization in education has also proved to be the right method for saving resources. Online examination platforms have restricted the frivolous usage of paper, directly confining the cutting down of trees. This way the digitization of the education industry in the 21st century proves to be a boon to our society. As administrators, we should develop our skills by adding digital learning resources in our quest for academic excellence.

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