

# Distance and Open Learning Perspective: Promoting Learning with Educational Technology

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**Abstract**—Covid-19 pandemic changed all aspects of life including the education system. The pandemic has led educators to implement other teaching and learning styles such as online learning as an educational tool. The use of educational technology in teaching and learning helps learners to have more control over their learning environment, increase motivation and involvement, communication skills and learn skills for everyday life. This article focuses specifically on the implementation of educational technology on promoting distance and open learning whilst addressing the online classroom needs with the Abraham Maslow's hierarchy of needs model. Recommendations for promoting teaching and learning are discussed in form of tools and strategies that can positively improve distance and open learning.

**Keywords**—open and distance learning, promoting learning, online learning, educational technology, Abraham Maslow

## I. INTRODUCTION

Distance and open learning is a telecommunication term which provide and enhance learning by exploring teleconferencing, internet and various related means for teaching and learning [1], [2]. Open learning philosophy allows learners to take admission in any qualifying courses without age limits whilst distance learning allows learners to pursue courses without any classroom presence. The open and distance education concept gives learners access to learning and training without constraints of place and time thus it is accessible to all. They are various types of distance learning which allow learners to receive education from another geographical location and these include synchronous distance learning, asynchronous distance learning, hybrid distance learning, fixed time online courses and electronic learning [3], [4]. In this article, electronic learning often known as e-learning which is a form of educational technology will be discussed in detail. According to literature, [5], [6] educational technology is the combined use of computer hardware, software, and educational theory and practice to facilitate learning. Education technology tools have been a paradigm shift in education to transmit knowledge and promote learners engagement in open and distance learning environment [7].

## II. METHODS

An overview of literature review was used as a method in compiling this article to assess the current state of research on the topic, identify key questions, understanding of the focus area and criticisms on the topic [8]. This has helped in identification of methodologies used in the past studies whilst finding research gaps, refining the research topic and determining new angle for approaching the research topic. This article brought scattered pieces of information are together observing constructivism theory principles such as knowledge is constructed rather than passively absorbed, learning is an active process and prior knowledge impacts the learning process [9].

## III. TEACHING AND LEARNING PHILOSOPHY

Learning is a process that leads to change which occurs because of experience and thus increase the potential for improvement in performance and future. The change in the learner may involve behaviour, attitude or knowledge. Learning is something that is done by the learner and is the direct interpretation of their respond and experiences. Educators use learning theories to enhance their classrooms and make them better learning environments for all learners. The educational theories are cognitive, behaviorism, constructivism, humanism, connectivism, transformative, social and experiential learning theories. The specific learning theories can be applied by educators when they create specific strategies and techniques for their classrooms to get a well-rounded education for their learners. Learning theories help teachers to connect to all students using different learning styles.

People learn in a variety of ways and different paces; however, they are a few factors which influence learning. Aptitude which is normally measured by intelligence quotient helps the learner to grasp new ideas and concepts quickly. Prerequisite knowledge of the subject matter helps the learner to possess the foundation for the material being attempted to be learned. However, both aptitude and prerequisite knowledge are learners' characteristics that the instructor cannot control. One of the factors that affect the learner is the quality of instruction and learning whereby we go beyond the basic principles of course design such as defining learning objectives, breaking course into instructional units and making the learner demonstrate mastery of the learning objectives. Learning to be effective

instructors should also consider that learning is not all in the head but involves the whole body with influence of factors such as repetition, feedback, stress and emotions affecting individual learners.

The components of learning and teaching philosophy include learning and teaching beliefs, purpose of education, goals, vision, mission, learning outcomes, objectives of education, role of teacher, role of learner, factors affecting teaching and learning, curriculum, teaching and learning experiences, evaluation, assessment, professional growth, pedagogical factors and institutional factors. To accomplish effective teaching and learning, there is need to implement teaching philosophy considering personal, physical cognitive and professional factors the teacher and learner.

#### A. *Promoting learning with educational technology*

The art of teaching for educators is to teach well in cooperating changes which make teaching and learning better. The basic techniques, teaching tools and delivery mechanisms have changed over time thus change in pedagogy and the technology employed. Educational technology as a teaching tool cannot be separated from basic pedagogic development. This tool can support student collaboration on creating new knowledge, reflect on what they are learning, provide visual aids to complement teaching, allow effective out of classroom teaching and stimulate understanding of course material. Some of these tools include Microsoft Power Point, Socrative, Padlet, Prezi, Keynote and Blackboard but not limited to these.

In a traditional lecture, students often try to capture what is being said at the instant the speaker says it. Learners cannot stop to reflect upon what is being said, and they may miss significant points because they are trying to transcribe the instructor's words. Open and distance teaching with educational technology is no different than teaching with chalk and a blackboard but rather a means for achieving the goals of the course and core ideas of teaching such as explanation, reasoning, questions, content, evidence and finding out.

#### B. *Purpose of educational technology*

Educational technology can accommodate all open and distance learning students' needs at any given time when coupled with other learning tools. Educators sometimes mistake technology stimulation on the learners for content understanding. Technology often arouses learner's interest and focus, and it is easier for the learner to go through the learning process aided by technology without understanding the concept at hand. In open and distance learning, the educator has to be beyond observant in the educational settings to critically evaluate and topple this dilemma. There might incidents where technology only makes things easier without making them better.

Let us look at the claim from different angles, teacher position and learner positions. In an instance where an educator employs a device such as a microphone to make himself more audible to a large tertiary school class, we are right to expect the learning and access to information to be

made easier and quicker. However, one would still not be wrong to assume that the lecturer's audibility as enhanced by the device also makes the teaching and the learning better even durable to students of short concentration span. I believe that tools engaged to make learning easier also make it better.

Even if a distance and open learner has access to the same learning content as another distance and open learner exposed and utilizing educational technology tools, his understanding would not be equitable to an understanding of similar content by a learner who receives learning in multiple forms. Educational technology tools have an added advantage of being able to consult the teacher even when at home no matter the distance from the instructor or teacher whilst having multiple learning tools such as PowerPoint presentations, Padlet discussions, audios and other forms of visuals like documentaries programs on TV and internet. In other words, educational technology makes learning better.

#### C. *Section Headings*

The Abraham Maslow's theory of motivation is one of the popular needs' theories [10]. Maslow's theory proposed that a person's motivation is as a result of attempting to fulfil five basic needs which are physiological, safety, social, esteem and self-actualization needs [11]. These needs tend to create internal pressure thus influence the behaviour of the person according to Maslow [12]. Physiological needs refer to human survival needs such as food, shelter and sleep whilst safety needs provide a sense of security and well-being to a person such as financial security, personal security and good health. Social needs and esteem needs refer to feel of belonging and self-respect respectively. On the top of the Maslow's hierarchy of needs is the self-actualization needs which refer to the need for a person to reach their full potential and maximize it. This is a highly personal need because it is the need to become what one is capable of. However, according to the progression principle lower- level needs must be met before high level needs. Two additional levels of needs namely understanding needs and aesthetic needs were later included in the Abraham Maslow's hierarchy of needs [13]. Maslow's theory of motivation is widely used in the education circle thus it can be implemented in online classrooms. To a teacher, Maslow's theory of motivation is a reminder that learners are likely to have poor performance if their needs are not met.

Applying Maslow's theory of motivation in an online classroom may seem challenging because a teacher has limited influence on social and home activities of students. The basic need for an online course is to make sure the learners have all the required books, materials, software and adequate high -bandwidth internet access. The educational institute can provide a clear basic needs check list followed with a pre-course and software orientation. The virtual instructor will have the task to ensure all needs are met prior to the actual course start date. Physiological needs can be accessed by asking questions if these basic needs have been met before the start of classes.

The next stage is to look at the safety of students which refer to shelter including a sense of comfort and familiarity but not limited to these. According to the Abraham Maslow's hierarchy of needs lack of safety brings anxiety, fear and a feeling of uncertainty. by asking questions such as how safe and secure the student feels in their online and distance learning set up. Accessing the safety of students in a learning environment is the next step with the aim of addressing any safety issues of concern. A feeling of love and belonging in the classroom is one of the needs to be met. Students should feel that they belong in the classroom and various discussion groups in the classroom. A strong relationship within peers brings a belonging feeling. A teacher can participate in classroom arrangements and put students where they feel supported and wanted. Once someone feels like they belong in the classroom the next step is esteem. The sense of feeling good about oneself is very important. Teachers can provide positive and powerful verbal feedback to students to support their self-esteem.

The self-actualization stage can be easily met if all other stages are met according to Maslow's theory of motivation. At this point theoretically we can assume that students will achieve their full potential once they enter the classroom. However, we know that in reality this is not true when we reflect on all the stages of the Maslow's theory of motivation.

As much as Maslow's theory of motivation is influential in the classroom and education at large, I still find it hard to substantiate the idea of needs in a hierarchy form and also that theory is difficult to test scientifically [14]. Knowing that people are different and have different cultures thus they don't think in the same way this possesses different views on the Maslow's theory of motivation. Motivation is a state of the mind which is the power that pushes an individual to perform things with positivity and highest spirit. Though some might argue that motivation is a relational concept rather than as residing within an individual. It is still the responsibility of the teacher to motivate learners in a classroom and the Maslow's theory of motivation helps the teacher to understand what will motivate learners.

#### IV. HIGHER LEARNING DIFFICULTIES

Learning difficulties or learning disabilities is an umbrella term for various learning problems encountered by learners during the learning process [15]. These difficulties are not an intelligence problem or lack of motivation or laziness by the learner, but they are caused by how the learners brains receive and process information [16]. In other words, learners with learning difficulties see, hear and understand things differently which can lead to troubles of learning new skills and information. These learning disabilities involve problems with writing, reading, reasoning, speaking and mathematics but not limited to these. It is not easy for a teacher to identify the learning difficulty due to a wide variation of the difficulties. There is no profile or symptoms which can be used to identify these difficulties, but a teacher can use warning signs such as visual perceptual, nonverbal learning

disabilities, language processing disorder, auditory processing disorder, dyslexia, dysgraphia and dyscalculia [17], [18]. At higher education level lack of accountability and professionalism can also be learning difficulties. Learners with learning difficulties need to achieve structural cognitive modifiability based on effective cognitive functions and learning experiences [19]. All learners need encouragement, support and motivation from their teachers and for learners with learning difficulties such positive reinforcement can help with their sense of confidence, self-worth and goal determination. A teacher is there not to cure the learning disability but to help the learner with tools to enhance effective learning. Motivation from the teacher dealing with learners with learning disabilities does not solve the problem but the good attitude will keep learning in perspective.

At higher education level one of the most significant problem faced by lecturers is students who are not English proficient [20]. Learners with learning disabilities in reading and writing in English face challenges during studies and after graduation, this reflects on the students' poor academic performance. These problems can be solved by allowing English language bridging programs at higher education with the help of English language teachers and instruction policy makers responsible for higher education policy. According to Kaya *et al.*, (2021) there is a collective agreement between content knowledge and prerequisite pedagogical content knowledge and this link addresses students' learning difficult by creating a model based on conceptual learning.

Other learning difficulties at higher education level can be considered as challenges. These include family factors which can reduce performance of the student, lack of adequate funds, technological issues, lack of support from family, lack of basic needs and student attitude. Some students find it difficult to adjust to the higher educational system, so they tend to perform below the average level and some encounter bullying and peer pressure. Cultural issues can also be challenge if students fail to understand that a school environment has mixed cultures thus the need to respect each other. All these challenges can be addressed by having a social structure which supports the student to have the best higher education they deserve. Learning disabilities associated with health issues should be addressed to the school or local clinic immediately to get medical advice on how to assist the student such that students with eyesight problems should be seated in front whilst students with hearing problems get their required hearing aids All learning difficulties can be solved by a combination of action plans such as listening to the learner, person-centered approaches in teaching, collaborative work among the teacher, parents and learning institution, development of curriculum which supports learning difficulties and working with learning and skills policies for disability rights legislation. According to [22], the Universal Design for Learning theoretical framework can be used coupled with assistive technology to enhance educational technology opportunities for learners with learning difficulties. Open and distance learners have mastery constraints, practical barriers, internal and external barriers which can be addressed by a selection of

appropriate learning methods and media essential for learners to understand online practicum material and concept.

## V. CONCLUSION

Technology does not only make content easily accessible, but also makes improvements on the content thereby introducing learners to better and more understandable ways of looking at an issue or topic of discussion. Learners with learning difficulties are also intelligent and smart they just need to be taught in a unique learning and teaching style and they will succeed. Learning difficulties are different with each learner and it is important for the teacher to identify these difficulties and implement teaching methods and curricula designed to assist with the learning difficulties. The student challenges can be improved by having inquiry-based learning, improving the technology that support learning, including the role of collaborative support and personal beliefs.

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