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Pedagogical Considerations of E-Learning in Education for Development in the Face of COVID-19

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Abstract

Education undergoes changes in globalization which makes it necessary to link people's lives towards development through teaching and learning. This paper explores the pedagogical issues of e-learning in education for development. With the growth of technologies and the fast pace at which Internet usage is spreading worldwide, there is a change in education demand and supply. Demographic changes resulting in increased populations in some contexts pose challenges for Higher Education (HE) regarding the demand for and supply of education especially amidst the global challenge of COVID-19. HE institutions are exploring and adopting instructional modes to manage the changing demands of education as they deal with various challenges especially, with COVID-19. E-learning is one of such modes. This study reviewed literature on the concept pedagogy, the concept of e-learning, theories of learning and their implications to e-learning, contributions of e-learning in education and a discussion around them. It revealed that the contribution of e-learning is a spotlight on learners' needs as they are the focus of all educational processes. The review finally concludes that e-learning should become an option for higher education delivery and recommended the need for instructors to be committed and motivated for effective instructional delivery.

Introduction

Education is constantly undergoing changes under the effects of globalisation. According to Bourn (2014), learning of global and development issues through recognising the value of linking people's lives throughout the world, is a way of identifying with development education. The importance of critical thinking, the need to challenge stereotypes and equip people with the requisite skills and confidence to support change towards a more just and sustainable world is key. In almost every way, education drives development resulting in technological changes that push the educational agenda. A two-way relationship between education and technology exist. Technology enhances educational activities by making every instructional delivery effective. Thus, employing various technological tools in education for effective and efficient instructional delivery is critical to ensuring the achievement of educational goals. The incessant growth of technologies and the proliferation of Internet usage is driving drastic change in the demand and supply of education. One area this change has had enormous influence is in distance learning. Distance learning has experienced the most change and has benefitted from technology distribution and knowledge sharing (Ravanelli & Serina, 2014).

It is very critical to note that as the world continues to deal with the realities of COVID-19 and its challenges especially in the education space, appropriate strategies need to be employed to continue to engage learners for teaching and learning. Higher education institutions have been adopting instructional approaches that will help them meet the increasing demands of education. One major area where this is happening is in the usage of new models, new innovations, and new ways of delivering content, connecting with students, and measuring outcomes. In developing countries like Ghana, population growth and the inadequacy in educational infrastructure and resources have resulted in the adoption and implementation of other educational forms (Tagoe, 2012). Ernnest Aryeetey, the former Vice Chancellor of the University of Ghana, Legon in his matriculation ceremony speech in October 2015, hinted that, out of a total of thirty five thousand, six hundred and thirty (35,630) applications received by the university that year, only eighteen thousand, one hundred and six (18,160) candidates could be admitted. The remaining seventeen thousand, five hundred and twenty-four (17,524) prospective students who had applied could not be admitted. The reason was because of the limited number of facilities and staff in the university.

This situation may be similar to the seven (7) other public universities in Ghana. The need for exploring alternatives that will therefore make higher education accessible to prospective students and to ensure

continuous instructional delivery during this pandemic (COVID-19), more particularly, is very important. To *ensure inclusive and equitable access to quality education and the promotion of lifelong learning opportunities for all,* it is imperative to adhere to global trends that will help in the achievement of this sustainable development goal indicator. E-learning offers such an alternative which supplements for the huge number of people who qualify for higher degrees but are denied (Tagoe, 2012).

In view of the above, this paper reviews literature and gives a critical overview of contributions by various researchers on the pedagogical considerations of e-learning with reference to higher education institutions. Issues identified in this review have implications for effective teaching and learning, and technology integration into education, particularly in the face of this global pandemic of COVID-19, where gathering to learn has become a nightmare. In this review, the four thematic areas covered in this paper include 1) pedagogy in teaching and learning; 2) the concept and definition of e-learning 3); theories of learning and e-learning; 4) implications of learning theories to e-learning and 5) contributions of e-learning to education. The conclusion discusses the issues raised in this review as well as my personal stance on the issues discussed in the review.

Pedagogy: Teaching and Learning

As a contested term, pedagogy entails activities that induce changes in the learner. Some authors have come up with various definitions for the term pedagogy as a concept. For instance, Watkins & Mortimore (1999), consider it as a concept that deals with all a teacher does to influence learning in learners. Their definition places the teacher in a position of a 'director' of learning. Thus, Watkins' & Mortimore's perspective of pedagogy focus on ensuring that the teacher's goal is ultimately towards learning in learners. *"The function or work of teaching: the art or science of teaching, education instructional methods"* (Department of Education, Employment and Workplace Relations (DEEWR), 2009). Pedagogy refers to the interactive process between teacher/practitioner and learner, and it is also applied to include the provision of some aspects of the learning environment ..." (Siraj-Blatchford, Sylva, Muttock, Gilden & Bell, 2002, p.10).

The above definitions place the ‘learner’ in the centre but also extend to the learning environment of the learner. Similarly, pedagogy has been defined by (Bernstein, 2000) as a sustained process whereby somebody(s) acquires new forms or develops existing forms of conduct, knowledge, practice and criteria from somebody(s) or something deemed to be an appropriate provider and evaluator. Some key issues worth considering have been indicated by Grossman & Richert (1988). They include, teachers' understanding of the various philosophies of education, knowledge of the principles and techniques of classroom management, knowledge of theories of learning and general principles of instruction, as well as general knowledge about learners. Pedagogy selection must thus, target the subject matter and the needs of the learners, learning theories, objectives, instructional methods, interaction, assessment, as well as the strategy development (Engelbrecht, 2003). Pedagogy from the above views, therefore, encapsulates all the necessary steps teachers undertake to make learning complete right from the beginning of instruction to the end. Grossman & Richert (1988) and Engelbrecht (2003) moved further by emphasising that teachers ensure that learning has occurred in learners. The authors included key issues that the teacher should consider if learning will be effective. These include classroom management, philosophies of education, theories that underpin learning, principles of instruction and general knowledge about the learners. These are considered as vehicles that will aid the teacher to facilitate instruction effectively with learners.

Two pedagogical models with a focus on teachers' organisation discourse, management and response to learners are proposed, as contrasted by Bernstein (1990). Bourne (2006) provided a discourse on Beinstein's (1990) *Performance* and *Competence* contemporary models of education. Beinstein (1990) as cited in Bourne (2006) points out that the *performance* model has clear, explicit, and well classified subject areas in the same way as skills and procedures that are to be taught to learners. Additionally, the selection, sequencing and pacing of the curriculum are beyond the control of teachers and learners. The hub of this model is mainly on what teachers must teach and what learners have to learn, and not what learners already know. Presentation and behaviour are guided by explicit rules and assessment is also explicit with clear comments pointing to what is missing in students' responses. Grades are assigned to students' performance with a lot of clarity to learners concerning what they have achieved as well as what they intend to achieve in future.

Contrastingly, the *competence* model has more diffused subject areas which are integrated in the form of projects and themes. There is a lot of control for learners in the selection, sequencing and speed of the curriculum that is facilitated by the teachers without pressure of meeting any target. A lot of emphasis is placed on learners' previous experiences. Teachers do not explicitly grade students' work and the professionalism of the teacher depends on the understanding he derives from theories of learning as well as the development of

language in the enhancement of learning, and not in overt teaching. Assessment is covert and not shared with the learner and so learners may be unaware about their achievement. It is however argued by Bernstein (2000) that notwithstanding the two contrasting features, and the type of model (*competence* or *performance*), all pedagogical issues are directed toward one goal - learning.

The focus of pedagogy from the definitions so far, is towards learning. Thus, teachers are regarded as drivers of learning and they are expected to do everything to ensure that learning takes place. This implies that teachers are required to employ all kinds of strategies and techniques that will make learning a reality, and in all cases, the learner must be central to the instructional process. It may extend to include other aspects of the learning environment, other than the instructional strategies. Teachers need to create possibilities by exhibiting their understanding of the subject matter as they create connections among pedagogy, learners, learning context, and the subject matter. The two emergent models of pedagogy – performance and competency which happen to be at the heart of every instructional process is key to the realisation of educational goals. As teachers teach, they are guided by both implicit and explicit elements of various kinds. These include lesson plan, objectives, real content -subject matter, assessment procedures and so on. Explicitly, teachers have no control of what they are supposed to teach as well as how they must teach. Everything is well structured, and learners must equally be ready to learn what is presented to them and be ready to be assessed after the instructional process. Implicitly, instruction is at the control of teachers, and learners have a say in the selection, sequence and even the rate at which the curriculum is delivered to them. Previous knowledge and experiences of learners about the content is critical. Assessment is more of project based.

It is particularly important to emphasize that the goal of education is to have a well-balanced instructional experience by both teachers and learners with a central focus on learning. Thus, a good mixture of the two models in a clear mapped out manner, is always the preferred option. For instance, amid a structured content and delivery of the content (performance model), learners' experiences popularly termed Previous Knowledge (PK) from the competence model, is employed when necessary. Additionally, both formative and summative assessment activities with the infusion of project-based assessment are employed. This approach creates diversity that ensures that learners with varied learning styles and capabilities are all catered for. Pedagogy in teaching and learning is a critical issue that needs to be considered with a focus on the learner. Thus, all efforts must be made to ensure that the learner is taken care of from the commencement of the instructional period through to the end. What then are the various issues that underlie learning? The next section therefore considers the theories that underpin learning and their implications to e-learning.

The Concept and Definition of E-learning/Online Learning

The concept of e-learning and online learning has been considered by different authors in various perspectives. In literal terms, e-learning can be looked at, as electronic learning that includes all learning situations that employ the new technologies. The Australian National Training Authority (ANTA) as cited in (Yelland & Tsembas, 2008), considered e-learning as a broader concept than online learning due to the fact that the former uses electronic devices that are detached and do not depend on being online. Such devices include videos, CD ROMS, slides, and photographs. Online learning in ANTA's view and cited in (Yelland & Tsembas, 2008), technically entails a variety of technologies like the email, audio, chat, WWW, newsgroup, text, video conferencing that are delivered over computer networks for education delivery. This implies that whereas online learning basically depends on computer networks for delivering instruction, with a connection to computer networks by users in all cases, e-learning, moves beyond network connectivity to the use of electronic devices that are used offline.

In an interesting twist, e-learning is seen as an educational means that involves technology, communication, efficiency, and self-motivation (Bloomsburg University, 2006). This perspective goes further to indicate that due to the limited social interaction that exist between student-student and student-instructor, it is very necessary for the students to motivate themselves and have frequent communication to ensure that assigned tasks could be accomplished. For further distinction and clarity, online learning which is an aspect of e-learning entirely replaces face-to-face classroom teaching and learning, and the needs of the new stakeholders are met through self-virtualisation. The problems of space and time as well as the dichotomy that exist between the inner and outer space, and face-to-face and distance, are easily dealt with (Ravanelli & Serina, 2014). This situation is defined metaphorically by Lévy (1997), as "*Moebius effect*" (p. 14). The institution thus, becomes an expanded context for learning (Ellerani, 2010) with all events that are contextually created, accentuate the "*intentional, relational, metacognitive and co-constructing dimension of the learning process*" (Ellerani in Crestoni, 2008, p. 71).

Interestingly, some authors define e-learning explicitly whiles others imply the definitions in their studies. Some authors in their definitions express conflicting views of others. Particularly, Ellis (2004) opposes Nicholas (2003) who describes e-learning as purely accessibility using technological tools, either web-based, web-distributed, or web-capable. It is believed that e-learning does not only cover content and teaching methods that are delivered through inter/intranet, CD-ROM but also through satellite broadcast and interactive TV, audio and videotape (Benson et al., 2002; Clark, 2002). It is equally important to mention that e-learning has both synchronous and asynchronous capabilities in its definition. According to Algahtani (2011), the completely online mode, is described as synchronous or asynchronous and this is by the application of discretionary timing of interaction. The synchronous, entails varying online access between instructors and learners, or between learners at the same time with tools like videoconference and chat rooms. The asynchronous according to him, permits everybody to communicate among each other over the internet at different times with threaded discussions and emails (Algahtani, 2011; Almosa and Almubarak, 2005). As he evaluates the effectiveness of e-learning experience in Saudi Arabia, Algahtani (2011) categorised the definition of e-learning from three different standpoints. These include: 1) the distance learning standpoint (Alarifi, 2003; Holmes and Gardner, 2006; Perraton, 2002); 2) the technological standpoint (Nichols, 2003; Wentling, et al., 2000), and finally 3) the pedagogy standpoint (Khan, 2005; Schank, 2000). Algahtani, touched on all the key essential components of e-learning.

Analysis of authors' perspectives on e-learning affected the way they defined the concept. Notwithstanding the varied and diverse perspectives in the definitions, key among all is the fact that there is the use of various technology tools in the presence of computer network for educational delivery. This delivery involves instructors and learners who collaborate, communicate and share knowledge. Even though the authors above have all included technological features in their definitions but critical to consider framework issues that will explain how learners construct knowledge. There is the need at this point to identify theories of learning to explain critical issues that bother on how learners learn. The next section therefore deals with theories of learning and further considers which of the theories support e-learning. Why should e-learning be considered as an option?

Theories of Learning and their Implications to E-learning

The understanding of theories of learning is key to teacher professionalism. How students learn, what they must learn, as well as how teachers can ensure student learning, are all critical issues that need to be looked at. For teachers to fully appreciate learners and their learning styles and be able to function effectively as teachers, there is the need to recognize the theories that underpin learning. Learning is a process of active engagement and education has shifted from the view of the "learner as sponge" to the "learner as active construction of meaning" (Wilson & Peterson, 2006). The works of Plato, Dewey and Socrates made us aware that learners are not tabula rasa, empty vessels, inactive observers, to name but a few. This premise has influenced most of our schooling system. The works of various theorists help to explain the way learning occurs.

Cognitivism

Cognitivists note that learners make sense of the world by actively making sense in what they read and their interaction with the environment (Wilson & Peterson, 2006). Cognitivists view learning as an internal process that includes motivation, reflection, meta-cognition, memory, abstraction, and thinking (Ally, 2014). To cognitivists, focus on the information processing from the sensory store through different senses and then transferred to the short term and long-term memories through diverse cognitive procedures (Modritscher, Spiel, & Garcia-Barrios, 2006). The relevance of individual differences and the inclusion of various learning strategies to deal with these differences, are always recognised by cognitivists (Kolb, 1984; Myers and Paris, 1978). A person's distinctive way of remembering, thinking and problem solving, is also depicted by cognitivists (Witkin et al., 1977).

Behaviourism

Behaviourist theorists such as Pavlov, Skinner, Thorndike, and Watson postulate that, learning is a chance in observable behaviour caused by external stimuli in environment (Skinner, 1974). To the behaviourists the human mind is likened to a black box because a response to stimulus can be quantitatively examined and the effect of thought processes that goes on in the mind, totally ignored. Using conditional and unconditional

branching to instructional units in the various courses, course designers must define the sequences of instructions. This is because activities are usually sequenced for amplifying complexities beyond the control of the learner. Within the sequence of learning activities learners may be directed to repeat some sections of the learning material based on the performance on tests that are within the sequence of the learning activities or the learner can choose the next instruction based on the activities. This gives the learner more control on the learning process. The approach for learning proposes the demonstration of operation, skill with the breakdown of the composite parts that are well explained before expected desired behaviour is copied by learners. The learners are expected to establish adeptness from constant revision with feedback. Reinforcement messages must be applied to ensure motivation (Modritscher, Spiel, & Garcia-Barrios, 2006). Four aspects of the behaviourist thought that are necessary for the realisation of online courses have been highlighted by Atkins (1993): E-learning material needs to be broken down into smaller instructional chunks and delivered in a deductive way, beginning with a rule, category, principle, definition with constructive examples that will strengthen comprehension as well as the establishment of boundaries through negative examples.

Constructivism

Constructivism emphasize that learners should be able to construct personal knowledge from the learning experience. Learning is therefore an active process, as such learning cannot be received from outside (McLeod, 2003). Learners should be made to construct their own knowledge instead of being 'spoon fed' (Duffy & Cunningham, 1996). Thus, learning should be an active process, there should be good interactive instructions, collaborative and cooperative learning, control of the learning process, and the availability of time and opportunity to reflect the learning content. Carswell (2001) as cited in Essuman and Appiah-Boateng (2015) argues that reality lies in the mind of the learner and learning goal is towards the construction of learners' mind, its own, unique conception of events. By implication, learners need their independence to be able to construct their own learning. Additionally, examples and the use of cases for theoretical information should be present with interactive learning activities (Hooper & Hannafin 1991; Murphy & Cifuentes, 2001; Mödritscher & Sindler, 2005). This calls for the inclusion of a constructivist theoretical model as a framework where there is a transformation of the individual's experience through the knowledge construction process with some level of interactivity (Ellis, 2004; Tavangarian, et al., 2004; Triacca, et al., 2004).

Social Presence

The fourth theory which has been identified to be of immense benefit to e-learning is the Social Presence Theory. Originally, Social Presence Theory (SPT) was defined as the extent of *salience* of the other person as they interact as well as the resultant *salience* of interpersonal relationships. Gunawardena (1995), gave a modern definition as the extent to which an individual is recognized as a 'real person' in arbitrated communication. There has been recent revelation of social presence by some authors. For example, Lowenthal (2010), considers that social presence lies on a continuum and its focus is basically on interpersonal emotional relation among communicators. This is on one side and on the other, a focus some perceived as being 'present', 'there' or 'real'. To Lowenthal (2010), most researchers seem to toe midway, as both sides of the continuum maintains some focus. It is essential to note that social presence has been considered as a significant determinant of the satisfaction of the audience in a computer-mediated communication by 60% variance contribution (Gunawardena & Zittle, 1997). It has been established that the overall observed learning was envisaged by the observed social presence in online courses (Richardson & Swan, 2003). Social presence has been identified as a construct (Williams & Christie, 1976) with two major concepts namely, *intimacy* which is controlled by a physical distance, smiling, eye contact and personal topics of conversation (Argyle & Dean, 1965) and *immediacy* which was conceptualized by Wiener & Mehrabian (1968), and later summarized as a measure of psychological distance that a conversationalist puts between himself and the object he converses with. It is worth noting that in the presence of COVID-19 where countries all over the world are ‘forced’ to ‘school from homes’, it is crucial to have a closer look at this theory due to its ability to close the geographical gap between the teacher and the learner.

Implication of Learning Theories to E-Learning

The implementation of an e-learning course could be complex and goes beyond the execution of methodical steps in an instructional design model. E-learning revolves more around three learning theories - the Behaviourism, the Cognitivism, and the Constructivism (Cooper, 1993) with emotional presence recently, as the

fourth one (Rienties & Rivers, 2014). The implications of behaviourism on e-learning point to a structured, deductive focus of the course design that enable the learners' easy grasp of concepts, skills, and relevant information. It also calls for appropriate ways to assess learners' achievement with prompt feedback. This implies that instructional designers must consider the diverse ways of chunking the learning content into smaller parts and the diverse learning styles of learners, as a form of motivation. Instructions should be appropriate for all levels of skill and experience. Studies have revealed that constructivism can be drawn on in e-learning to appreciate how learning among learners takes place (Harman & Koohang, 2005; Hung, 2001; Hung & Nichani, 2001). The learning theories discussed are central to the implementation of various e-learning approaches. Research has shown that e-learning can draw on the constructivist learning theory which focuses on learners' previous experience, to understand how learning occurs among learners (Harman & Koohang, 2005; Hung, 2001; Hung & Nichani, 2001).

One of the issues of controversy with regards to e-learning delivery is the 'warmth' that seem to be absent. For example, it is quite ridiculous, the idea of considering students' emotions when it comes to e-learning (Morrison, 2005). How is this dealt with? Learners' emotions in a face-to-face session are easy to handle due to the physical presence of the learners which is not the case of e-learning where learners are physically separated from their instructors. How then can emotional presence be dealt with? Emotional presence is explained as the external expression of emotion and feeling by persons and among persons in a community of inquiry, through relating to and interacting with the learning technology, content, learners as well as instructors (Garrison, 2011). Learners' emotions in this sense, can greatly impact learning in e-learning and blended environments, such as motivation, self-regulation, and academic achievement (Rienties & Rivers, 2014). The question is: Why should educators bother with learners' emotions or feeling at all? Every instructor or educator becomes fulfilled when learners are engaged in the whole learning process and they can achieve the set goals for the session. This is the role emotional presence plays in online learning and deserves that special consideration (Artino, 2012; Rienties & Rivers, 2014), especially in this current state of COVID-19. It is key to note that pedagogical issues that border on e-learning are worth emphasising because learners are central to the teaching and learning process, especially when it comes to technology use in education. Educators should therefore place value on theories that underpin learning as they plan, design, and implement instruction. The next section looks at the concept of e-learning and online learning.

Contributions of E-learning to Education

Evidence in literature points to a wide range of contributions that exist in e-learning and online learning in education. More importantly, e-learning can be beneficial to both the teacher and the student alike (Maikish, 2006). Obviously, e-learning can allow learners in higher education institutions to obtain their education and at the same time pursue personal engagements and their careers without bothering about tight schedules (Borstorff & Lowe, 2007). The attained benefits for both learners and institutions have resulted in a stunning increase of online courses (Kartha, 2006). Learning Management Systems (LMSs) - e-learning tools, provide flexibility so far as space and time are concerned. They are online portals that connect instructors and learners and provide an opportunity for course materials and activities to be easily shared (Adzharuddin & Ling, 2013). They do that by permitting advanced interactions between instructors and learners and ease access to learning resources.

According to Georgiakakis, Papasalouros, Retalis, Papaspyrou, and Siassiakos (2005), LMSs function as a single window for all kinds and levels of interactions for students, teachers, and administrators. Hsu (2011) postulated that face to face learning grouped with e-learning, bridges the gap between students and instructors. By implication, LMSs are a high potential of enhancing teaching and learning when combined with face to face sessions. It is interesting to note that students are mostly attracted to courses that have Information Communication Technology components in them. For example, in their study, Alkhanak and Azmi (2011) revealed that students like to take those courses that include the use of Information Technology. They pointed out that activities that are offered through e-learning systems are more useful and valuable as compared to traditional face to face classroom activities.

There is empirical evidence that point to the wide adoption of LMSs in higher education especially with regards to students' views. A survey of students' experiences and perception of MOODLE and Blackboard in the University of Minho analysed students' method of engagement with a course, their preferences, satisfaction level as well as how they assess the various features and functionalities of these LMSs (Carvalho, Areal & Silva, 2011). In general, the study revealed that, the students appreciated LMSs' contribution to their learning and viewed them as supplementary rather than substitute to traditional classroom teaching. In a similar study, Hölbl & Welzer (2010) revealed that the attitudes and approaches of students were positive when they used MOODLE

as a learning tool. According to them, the students were pleased that it was an appropriate approach to contemporary teaching and learning. In the same way, the students believed that even though e-learning is particularly useful, it could not replace face-to-face learning completely. Daoud's (2007) study on the use of MOODLE as an LMS showed that, it is mostly used for sharing and distributing learning materials. To most of the respondents, it was found to be easy to use and this made them highly satisfied. The teachers were not left out. To them, it was possible to have an out of classroom communication with students. They also appreciated the ease with which the resources could always be managed digitally and delivered to the students.

As a preferred mode in many contexts, it is necessary to recognise among other things that, e-learning provides various benefits (Algahtani, 2011; Hameed et al., 2008; Klein & Ware, 2003; Marc, 2002; Nichols, 2003; Wentling et al. 2000). This makes it very viable as the preferred option for our context, more especially where the world is faced with the challenge of home schooling because of COVID-19. Due to the nature of the learning needs of the 21st century students, it is essential to consider flexibility and convenience without compromising quality. One way to achieve this flexibility in learning is using online learning tools that deal with the various learning needs of the student. Online and e-learning have become the preferred modes due to the flexibility they offer with respect to space and time by permitting advanced interactions between instructors and learners as well as ease of access to learning resources. This flexibility opportunities provided by the two modes (online and e-learning), place students at the heart of the educational decision-making process and the learning environment (Yelland & Tsembas, 2008). According to Maikish (2006), online teaching and learning environments can be beneficial to both the students and teachers, which work well for the education goals in terms of the curriculum. The means of providing this flexibility and convenience of learning is can be ensured facilitated using Learning Management Systems (LMSs).

LMSs are platform that help students and lecturers to interact online. According Gallagher-Lepak, Reilly, and Killion (2005), LMSs function as a single window for all kinds and levels of interactions for students, teachers, and administrators. Several institutions have started using LMSs to manage their teaching-learning resources as they manage with COVID-19. Teaching and learning online using LMSs continues to enhance instructional delivery among students, and among students and teachers. Students can have discussions among themselves as a whole class and as small groups. Rovia (2004) for example, indicated that online learning gives balanced benefits of whole-class and smaller group discussions. To further emphasize the issue of the benefits of online group discussion, Stepich & Ertmer, (2003) posited that the presence of both the tyro and an expert learner in a class can contribute a component of interdependence among students as they construct meaning together. Teacher-learner interaction in an online learning platform is very essential. Instructors and learners, value synchronous discussions that allow them to interact real time. For instance, in a case study of a distance course, students and instructors valued two-way synchronous discussion for asking and answering of questions (Rogers, Graham, Rasmussen, Campbell and Ure, 2003). Apart from the academic work that occurs on LMSs, informal bonds that facilitate learning is enhanced through all forms of communication on the platform. This is confirmed by Gallagher-Lepak, Reilly, & Killion, (2009) who reported that during informal chats, learners build friendships and comradeship. This to them is very essential for learning. Additionally, e-learning has been considered among the best methods of education (Algahtani, 2011; Hameed et al, 2008; Klein & Ware, 2003; Marc, 2002; Nichols, 2003; Wentling et al. 2000).

Having the ability to focus on individual learner's needs, Marc (2002), as he reviewed strategies for the delivery of knowledge in the digital age, posited that one of the benefits of e-learning in education has to do with its spotlight on the needs of learners. According to him, this is an important feature in the educational process since the focus is supposed to be on the learner and not the instructor or the institution. Similarly, Holmes and Gardner (2006) consider the benefits of e-learning to be its assessment nature of learners as they learn and deepen their experiences in education at the same time. To them, this is achieved by interactivity that is appropriate to society education, diversification of culture and globalisation, as well as the elimination of boundaries of place and time (Holmes and Gardner, 2006). They emphasize the benefit of e-learning in education to be its ability to centre on learners. Again, e-learning is able to allow students to watch all activities that take place in the classroom and also listen to instructors as often as they need, through interactive video facility embedded in the e-learning platform (Zhang et al. 2006). From the above synthesis of the benefits, it is obvious that in all the instances the focus is on the learner. Thus, whatever happens in the teaching and learning situation, places the learner in the center with all others revolving round him or her. Educators and stakeholders are therefore supposed to put all measures in place to ensure that the learner becomes the focus of the instructional process.

With all the benefits notwithstanding, it is important to indicate that there are some downsides to e-learning that need to be highlighted. For example, the most obvious disadvantage of e-learning is the absence of important

personal interaction among learners themselves and learners and instructors (Young, 1997; Burdman, 1998). Other studies give the disadvantages of e-learning as:

1. *E-learning as a method of education makes the learners undergo contemplation, remoteness, as well as lack of interaction or relation... It therefore requires a strong inspiration.*
2. *With respect to clarifications, the e-learning method might be less effective that the traditional method of learning.*
3. *When it comes to improvement in communication skills of learners, e-learning as a method might have a negative effect...*
4. *Since tests for assessments in e-learning are possibly done with the use of proxy, it will be difficult, if not impossible to control or regulate bad activities like cheating.*
5. *E-learning may also probably be misled to piracy and plagiarism, predisposed by inadequate selection skills, as well as the ease of copy and paste.*
6. *E-learning may also deteriorate institutions' role, socialization role and also the role of instructors as the directors of the process of education.*
7. *... not all fields or discipline can employ the e-learning technique in education. For instance, the purely scientific fields that include practical cannot be properly studies through e-learning. ....*
8. *E-learning may also lead to congestion or heavy use of some websites. This may bring about unanticipated costs both in time and money disadvantages (Almosa, 2002; Akkoyuklu & Soylu, 2006; Collins et al. 1997; Hameed et al., 2008; Klein & Ware, 2003; Lewis, 2000; Marc, 2002; Scott, Ken, & Edwin (1999).* (Arkorful & Abaidoo, 2014, p. 403).

One other critical issue worth considering about e-learning is its acceptability of issues of instructors who undoubtedly are supposed to guide learning. Thus, LMSs' success in institutional environment is largely dependent on the acceptability of the tools by instructors. This is because they influence the use of LMSs by the learners (Al-Busaidi & Al-Shihi, 2010) and any sign of rejection or apathy towards the use of these tools, has serious implications on students' use consequently. Another critical issue of great concern is complaints from most faculty about work overload in using e-learning platforms during other demanding responsibilities such as face-to-face teaching and learning, supervision of students' project work/thesis, among others. Despite the disadvantages of e-learning outlined above, its contributions to education justify its use and hence, generate the exploration of strategies that would minimize the odds.

Discussion

This study reviewed literature and gave a scholarly overview by considering contributions by researchers on the concept of e-learning in education, in the face of COVID-19. Particularly, it looked at e-learning in connection to the concept of pedagogy in teaching and learning, definitions of e-learning by different authors, theories of learning and e-learning, contributions of e-learning and a discussion of all the issues. The paper revealed that pedagogy entails activities that induce changes in the learner and noted various definitions of the term by different authors with the focus that the learner is in the centre of the instructional process whiles the teacher serves as the director of learning. The selection of pedagogy targets subject matter, needs of learners, learning theories, objectives, instructional methods, the interaction among teacher and students, and among students and assessment. Pedagogy therefore is not just limited to the method of teaching as most people assume but moves further to all the activities and resources that enhance and ensure that learning takes place.

Teachers must understand educational philosophies, strategies that promote classroom management, the various theories that underpin learning and more importantly, have a general knowledge about the target audience who are the learners. All these are vehicles that will help the teacher to drive his teaching effectively and safely to his destination (learners). The implicit (competence) and explicit (performance) pedagogies show diverse approaches that instruction is delivered to learners as indicated by Bernstein (1990). These models of pedagogy take into cognisance the various learning styles of the learners, the content and how it should be sequenced and paced, what teachers are supposed to teach and how learners are to learn, instructional strategies, and the assessment procedures teachers are to administer. These activities and actions are either covert or overt, or both. It behoves on teachers that to be able to meet educational goals, it is expedient for them to understand the issues and determine when to introduce what.

On the issue of e-learning, the paper espoused various definitions by different authors and revealed that e-learning as a concept deals with all electronic learning involving learning conditions that use modern technologies, whereas online learning has to do with the use of technologies such as chat, audio, email, WWW, text, video conferencing among others. It can be inferred from the definitions that whiles online learning is

restricted to being connected to computer networks over the internet, e-learning has a broader scope and goes beyond computer network connectivity to the use of electronic devices that are used offline. E-learning, therefore, is ideal to our peculiar context where challenges such as internet connectivity problems as well as the outbreak of COVID-19 which has stirred learning from a distance, are concerned. Thus, during periods where internet is available and reliable instruction can be delivered online and in moments of 'crises' (no internet or connectivity problems), digital devices and other alternatives could be relied on. These adjustments and alternative exploration are needed so that learners can learn effectively and efficiently.

Conclusion

The contributions espoused in this paper point to the fact that, e-Learning is an alternative for educational delivery especially in the era of technological advancement, the unceasing quest for education pursuit by prospective students amidst infrastructural constraints in our context and, the arrival of the COVID-19, as a global threat. The role of theories of learning in relation to e-learning is crucial to the realisation of instructional goals. That notwithstanding, it is important to consider the challenges that confront the integration of technology in education from the Ghanaian perspective and maximise the strengths that are inherent in this mode of delivery. There is the need to do a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of the whole delivery in the past, present and project into the future. Needs Assessment Analysis must be looked at to be able to determine the right way forward, for a necessary intervention.

E-learning should be an option for higher education delivery especially in our context as Ghana and globally when COVID-19 has been a thorn in the flesh. Due to the peculiar situation in these times, it is strongly recommended that higher education institutions in Ghana and globally, should adopt an e-learning/online mode of delivering instruction in a well and carefully planned manner, until COVID-19 has been properly managed and physical contact could be tolerated again. This would ensure that effectiveness and efficiency so far as the goals of education for development are concerned, are realised.

Recommendations

As teachers understand the pedagogy of teaching and learning, it is equally important to understand the theories of learning. How do students learn? What do they have to learn? And how can teachers ensure that students are learning in the face of COVID-19? The answers to these and other related questions, lie in the theories of learning. It is important to appreciate the fact that learners are different with different learning styles. Theories such as cognitivism, behaviourism, constructivism, and social presence are learning theories that all educational practitioners especially teachers should be abreast with. Additionally, the implications of these theories to e-learning are critical. How content will be chunked, how to introduce the various segments of the instruction and more critically, how to deal with warmth (social and emotional presence) issues in e-learning where learners are mostly separated from the teachers in space and time, are critical and must be highly considered. Teachers must learn to embrace ways that will keep learners connected all the time, since they must deal with absence in the current (COVID-19) times. It implies that teachers will have to go the extra mile to consciously provide warmth and a sense of belonging to learners. This could be achieved by providing immediate feedback as well as providing clear and concise instructions and directions as they deliver instruction.

Instructors should ensure that learners feel empathized especially, as they are geographically separated from their instructors. This could be achieved using warm and encouraging comments that will make students feel belonged. It calls for instructors' commitment to work extra and management of HE institutions' readiness to motivate instructors to ensure that they give up their best as they engage learners to learn better. The key question worth asking is: Why should e-learning be an option for education for development in the face of COVID-19? The paper recommends a further research into faculty's work overload and quality assurance issues in e-learning mode of instructional delivering instruction.

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