IMPACTS OF ONLINE LEARNING TOOLS ON TEACHERS TEACHING EFFECTIVENESS IN PUBLIC SECONDARY SCHOOLS

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Abstract

This paper x-rayed impact of online learning tools on teachers teaching effectiveness in public secondary schools. Online learning involves a variety of approaches, such as making resources available electronically and creating rich, interactive online experiences with class activities using Web tools like chat and discussion groups. Online learning offer flexibility as they may not require learners to be at a specific location for class participation. Students may work with course materials at their own convenience, or they may work collaboratively with other students in a Web environment. The paper looked at and explored the impacts of digital library on teachers teaching effectiveness, impacts of zoom on teachers teaching effectiveness and impact of projectors on teachers teaching effectiveness. Also discussed in the paper are the challenges in utilizing online learning tools for teacher effectiveness, which includes; lack of effective training, lack of teachers competency and limited time. Online learning provides various opportunities for learners to interact with each other and with their teachers, such as live chats, discussion boards and group projects, which reduce feelings of isolation. The paper concluded that online learning tools are very paramount to facilitate effective teaching and learning. In what follows, it suggested that teachers should be trained on the use of online learning tools to enhance effective teaching processes.

Keywords: Online learning, projector, zoom, digital library, challenges.

A teacher is one who instils right conduct in students for future development. The teacher is expected to perform important functions of guiding, directing, evaluating and imparting knowledge, skills and values to the students. In this regard, to participate fully in the new knowledge society, the teacher needs to be equipped with necessary competences and provision of necessary instructional facilities to support the integration of digital online learning tools into their instructional practices.

Online learning tools devices such as laptops, computers, tablets, personal digital assistants, interactive white boards, internet, e-library, projectors, smart phones among others, are used today in the classroom as instructional tools. These trends have driven higher expectation among teachers for digital approach to teaching. To confidently use these tools in the classroom to deliver quality instructions, teachers need certain competences. Teacher effectiveness with the use of online tools is therefore the knowledge, skills and attitude to creatively and

confidently adapt to the new knowledge requirement of digital technology and the appropriation of the knowledge and skills towards the attainment of set educational goals and objectives. However, the National Institute of Educational Technologies and Teachers Training (2017) identifies teachers' digital competence to include information literacy competences, communication competences, digital content creation competences, safety competences and problem solving competences.

Information simply means facts, while literacy commonly refers to as a person's ability to read and write. One of the greatest challenges of quality instructional delivery in the 21st century is the ability of the teacher to acquire competency with the use of online tools and to apply instructional technology in their practices. In achieving this, school principals need to equip the information environment by providing training and supplying teachers with necessary online tools needed for teaching and learning. Instructional process requires effective communication, in order to attain predetermined goals and objectives. Improving teacher communication competence involves a level of performance based on knowledge, skills and attitudes for optimal motivation that determines the efficiency of using online technology in communicating knowledge to the learners. Teachers' online content-creation competence is among the on-going practice in designing digital materials, and how to use such materials effectively as instructional tools. In view of this, the procurement of online content such as word processing, spreadsheets, presentation packages, database, web editing, image editing, among others software and applications. This involves giving teachers clear guidelines and supervision on how to create online content and access online environment for teaching and learning. Regular professional development programmes for teachers on how to create and edit an e-mail address, WebPages, word documents, presentation slides, videos, podcasts, among others could be means of developing teachers' teaching effectiveness, content-creation competence for quality instructional delivery. It will reflect good practices and standard use of digital devices as an instructional tool. In this way, teachers' becomes conversant with the acceptable policies and agreements, social media policies, data policies, digital identity protection and security measures on the use of digital technology in teaching and learning.

More so, facilitating teachers' teaching effectiveness in problem solving is a means of providing solution to educational problems using online technology. Facilitating is the role of school principal to obtain the needed instructional resources and provide professional development opportunities for teachers to use online tools in solving educational problems. Again, teachers can develop competence in using online learning tools to solve the problem of instructional materials, through making informed decisions as to which are the most appropriate online learning tools to be used according to purpose.

Conceptual Clarification
Online Learning Tools

Online learning tools involves the use of computers, internet, e-library, projectors, use and application of a variety of tools and techniques, for instance e-mails, websites, blogs, social and business media, and being able to access program supplies on the internet whilst carrying out programs delivered entirely on the internet (Heeger, 2010). Although online learning tools platforms can be of different

kinds, some advanced private higher institutions provide educational programs that involve use of web or the internet systems to improve students' academic achievements .According to Olaniyi (2006), online learning tools are all about learning that occurs through the use of computer. In our contemporary world, the learning through the aid of a computer simply means online knowledge acquisition through the internet or offline through CD-ROM etc. In other words, it is the use of network technologies to create, foster, deliver, and facilitate learning, anytime and anywhere. Horton (2005) defined online learning tools as the use of internet and digital technologies to create experiences that educate our fellow human beings. Digital learning tools has the potential to revolutionize the way we teach and how we learn (DfES, 2003).

Following Oye, Salleh and Iahad (2011), online learning tools are basically a teaching and learning method via the web, system or a standalone personal computer (PC). From another dimension, Cooke (2014) defines online learning tools as a network-enabled expression associated with functions that facilitate teaching and learning in an efficient manner. Online learning tools programs and procedures consist of web-based learning, computer-based learning, digital classes and electronic activity (Heeger, 2010). The programs provide platforms with content materials which are transferred by the web intranet or extranet, sound or even movie MP3s, satellite televisions and CD-ROMs. It is against this background that online or digital learning tools was initially known as "internet-based learning", while nowadays, online learning tools are called "web-based learning". Technically, online learning tools does not only regard instructions and coaching by the instructor, but also involves learning that is tailored made to specific learner needs in the private secondary school. According to Oye et al., (2011), numerous terminologies occur to be accustomed to determine learning which are on the internet.

Given that the success of online learning tools in enhancing teachers teaching effectiveness depends on the quality of information and communication technology (ICT). The impact of online learning tools in improving teachers teaching effectiveness cannot be isolated from the nature of ICT infrastructure (Niyazazari & Hosseini, 2012). In today's highly globalized world, the use and application of information and communication technology (ICT) in teaching for learning has brought about remarkable achievement in improving in the competency of teachers as well as students' academic performance in many academic disciplines. According to Mahdinejad & Amoii (2011), application of ICT-based teaching and learning in an interactive manner stimulates students' interests to acquire knowledge and apply the acquired knowledge in solving practical life social and economic problems.

Impact of Projectors on Teacher Teaching Effectiveness

Projectors which are also slide projector are a component in information and communication technology. It is an optical instrument that projects an enlarged image of individual slides onto a screen or wall; Collins English Dictionary (2013). Projectors can be used to cater for a wider variety of needs through the presentation tools it offers. Projectors can be used to view educational films, show lesson presentations or even to get students involved with interactive slides.

The benefits of the use of projectors in teaching include:

i.　　　Projectors stimulate students' interest**:** In the process of delivering lesson by the teacher, there is the need to generate, arouse, motivate and maintain students' interest. If the learners' interest is build properly, learning can take place effectively. Projectors have the potentials if effectively used by the teacher, for regulating the pace of information flow among different class of learners under the same classroom. Students are aroused with the nature and the beautiful appearance of the materials which will make them to settle down and learn what the teacher had prepared to teach. Caslin (2005) agreed that pictures-stimulated teaching as used by the teacher help further study and also help children to take active interest in the topic presented.

ii.　　　Projectors make conceptual abstractions more meaningful**:** The use of projectors in teaching and learning process makes learning real, practical and more permanents to the learners. It makes conceptual abstraction more meaningful. Igwe (2003) stated that projectors are effective instructional materials are valuable assets in learning situations because they make lessons practical and realistic. They are the pivots on which the wheels of the teaching-learning process rotate. Since it concretizes issues, it then facilitates revision (recall) activities and provider very unique opportunities for self and group evaluation for the teacher and the students alike. It captures the student intellect and eliminates boredom; make the work easier, neater, and boosting for clarity and more appeal; Setzer (2002).

iii.　　　Projectors make presentations viewable to large audiences**:** With the use of projector, instructions are packaged in a very broad manners and which take care of wide range of learner in a classroom with less stress and time. Many students will be able to learn faster as the package takes care of various learners' interest at the same time. Teacher can handle a very large class conveniently as the teacher is guiding and display the instructional materials on the wall with the use of projector.

iv.　　　Projectors offer more innovative displays**:** Projectors improve the presentation of materials for lessons.

　　　　The use of projector is the best way to teach and hold significant teaching and learning benefits, using projectors stimulates children and enhances their learning experience. Torruam and Abur (2013) opined that using projector to put up a flowchart or any diagram for example is so much easier to explain to students. Projectors enable teachers to creatively show video clips or movie, colour photos and pictures and sound to create presentations that teachers can refer to as they do the "chalk and talk" section of the lesson. This, in the words of Caslin (2005) is used to get information into the class that will be required in order to complete an individual or group task.

Impacts of Digital Library on Teachers Teaching Effectiveness
　　　　According to Wikipedia, the free encyclopedia (2013), e-library is a library in which collection are stored in digital formats (as opposed to print, microform or other media and accessible via computers. The teacher in a bid to deliver his teaching service effectively makes use of the digital library for effective preparation. The digital library affords the teacher the ability to source so many information that may not be available in a print copy. To this end, the importance digital library cannot be overemphasized. The digital contents may be stored locally or accessed remotely via computer networks. An e-library is a type of information retrieval system. The e in e-library stands for electronic. Electronic library is a type of service that allows users, without actually stepping into the library to read library books and conduct research

at home, in the office, or at school, using the internet service which enables users to effectively employ electronic data by using an in-library network also referred to as electronic library service. According to Hoerup (2001), e-library is a new library service that applies rapidly advancing data processing technology and networking technology and it is expected to become a highly convenient, epoch making mode of service. From the foregoing, it can be said that e-library is a library which provides primary and secondary information electronically through communication networks. It enables users to directly access electronic data via telecommunication networks. Hoerup (2001:102) identified the following to be the importance of utilizing e-library in teaching in schools:

i.   E-library helps teachers and students access resources without stepping into the library.

ii.   Providing meaning and useful sources of information to teachers and learners: teachers are up to date and able to provide for reliable and useful information for the learners with the use of e-library, it can effectively be used to ultimate, shorten information form various sources for the purpose of comparison and contrasting ideas. It helps in perception and retention of information or knowledge in learners.

iii.   Students have access to scientific information and data which interests them without being confined within the four wall of a library.

iv.   E-libraries provide teachers with a feasible way to let students pursue their own interest within the bounds of the curriculum.

The information resources in our school are very vast and fast growing. It is important for both teachers and students to be aware of the formal processing strong and use of the library resources. Teaching and learning mostly takes place in the classroom. However, a reasonable amount of the materials needed for effective teaching and learning are found in the library. The school library provides basic ancillary services that should be provided by any did active institution (Agabi and Okorie, 2002). Books in the library are made appropriate for the age and level of the learner. The needs of the students and teachers must be captured when setting up a library. The library is made of books and non-book materials such as records, files slides and artifacts. The library plays a major role in the enhancement of learning and teaching activities which takes place in the classroom.

Impacts of Zoom on Teachers Teaching Effectiveness academics Performance of Students

Zoom is a video-chatting tool similar to Skype and Google Hangouts which can be can used to hold online classes, visit virtually with friends and relatives, and even join remote events like birthday parties. For teachers, the free version of Zoom provides a suite of useful features, including the ability to host meetings with up to 100 participants, and to allow students to wordlessly signal to the teacher that they have a question, brainstorm on a virtual whiteboard, and collaborate on projects by annotating documents on other students'' screens. However, an upgraded version of Zoom, ideally managed by the school or technology team will provide additional options and control, including the ability to record, an admin dashboard, managed domains, single sign-on, and more.

A zoom session is one of the types of synchronous learning. Synchronous Learning is a modern notion derived from online learning which focuses on

integrating technology with teaching methodologies as a means of delivery within educational institutions for the sake of making the learning process easier for students and teachers. This concept is characterized by a combination of many traits such as a technological device connected to a network (zoomlication), a suitable timing for both teachers and students, different locations, real time communication, online participants, and instantaneous feedback through video, voice or text chat interaction between participants (Hrastinski, 2007).

Presently, many schools are training teachers to integrate the use of technologies like zoom to bridge the learning gap between the students and the teachers in terms distance. Blended learning tools are becoming universally used during instruction within education system because of its rapid acceptance in facilitating communication which leads to the widespread popularity of distance learning (Romoszowski & Mason, 2004). This blended learning tool comes as a solution for educational researchers who are constantly trying to develop innovative means to enhance the interactivity of the learning process in order to stimulate students' motivation and engagement in discussions for knowledge exchange, which also leads to developing general language learning (Tanti, 2012). On the other hand, teachers integrate these tools into language instruction process to make the material easily comprehensible whether it is used on individual or group level of communication. (Blau & Barak, 2012).

Multiple studies have examined the importance and impacts of different synchronous means on language learning and basic skills. Moreover, Watson (2009) focused on the use of text chats and instant messaging in online sessions and stated that it yielded positive impacts on the cognitive acquisition of the language. Sauro and Smith (2010) investigated the language input of the learning process during the use of synchronous strategies and noticed an improvement on the level of students' linguistic comprehension and lexical schemata of the foreign language (English language). Furthermore, Ochonogor, Alakpodia and Achugbue (2012) investigated the effects of chat rooms on learners' academic performance and discovered that learners showed better writing and speaking skills after the experimental period of online sessions ended. Similarly, Grosz-Glunchman (2013) investigated text chats as a means of instruction for students in a study that concluded that students showed progress in developing better message numbers, word count, lexical schemata and syntactic structuring leading to enhanced writing and speaking skills.

Various researchers proposed that a zoom session (a synchronous learning strategy) can have a direct link with positive impact on students' academic performance and motivation towards the learning process. The uses of zoom includes but not limited to:

Record and share lessons: Because many students do not have reliable internet at home or are sharing devices with other family members, asynchronous lessons -- where students can view prerecorded lessons on their own schedules -- make distance learning more equitable. You can use the recording feature in Zoom to create video lessons, then share the videos with students to watch later.

Teach live lessons. For schools and districts that have solved the technology access issue, synchronous -- or live -- lessons are an option. Teachers set up a regular class time on Zoom and guide students through remote learning activities.

Flip the classroom. With the "flipped" classroom model, teachers assign students new material to learn on their own (videos, reading assignments, etc.), then use class time to help clarify the new information and put it to use. Use your live Zoom classes to answer questions about what students learned, and lead them in activities to apply their new knowledge.

Challenges in Utilizing Online Learning Tools for Teacher Effectiveness

Integrating online learning tools is of high importance which has made it possible for high level of retention among the students. The following are some of the key challenges that have been identified in the literature regarding teachers' use of online learning tools:

Lack of Effective Training

The challenge most frequently referred to in the literature is lack of effective training (Albirini, 2006; Balanskat et al., 2006. One finding of Pelgrum's (2001) study was that there were not enough training opportunities for teachers in using ICTs in a classroom environment. Similarly, Beggs (2000) found that one of the top three barriers to teachers' use of ICT in teaching was the lack of training. Recent research in Turkey found that the main problem with implementing new ICT in education was the insufficient amount of in-service training for teachers (Özden, 2007), and Toprakci (2006) concluded that limited teacher training in ICT use is an obstacle.

According to Becta (2004), the issue of training is certainly complex because it is important to consider several components to ensure training effectiveness. These were time for training, pedagogical training, skills training, and an ICT use in initial teacher training. Correspondingly, recent research by Gomes (2005) relating to various subjects concluded that lack of training in digital literacy, lack of pedagogic and didactic training in how to use ICT in the classroom and lack of training concerning technology use in specific subject areas were obstacles to using new technologies in classroom practice. Some of the Saudi Arabian studies reported similar reasons for failures in using educational technology: the weakness of teacher training in the use of computers, the use of a "delivery" teaching style instead of investment in modern technology (Alhamd, Alotaibi, Motwaly, & Zyadah, 2004), as well as the shortage of teachers qualified to use the technology confidently (Sager, 2001). Providing pedagogical training for teachers, rather than simply training them to use ICT tools, is an important issue (Becta, 2004). Cox et al. (1999a) argue that if teachers are to be convinced of the value of using ICT in their teaching, their training should focus on the pedagogical issues. The results of the research by Cox et al. (1999a) showed that after teachers had attended professional development courses in ICT they still did not know how to use ICT in their classrooms; instead they just knew how to run a computer and set up a printer. They explained that this is because the courses only focused on teachers acquiring basic ICT skills and did not often teach teachers how to develop the pedagogical aspects of ICT.

Lack of Teachers Competency

Another challenge directly related to teacher confidence is teachers' competence in integrating ICT into pedagogical practice (Becta, 2004). In Australian research, Newhouse (2002) found that many teachers lacked the knowledge and skills to use computers and were on enthusiastic about the changes and integration of supplementary learning associated with bringing computers into their teaching practices. Current research has shown that the level of this barrier differs from country to country.

In the developing countries, research reported that teachers' lack of technological competence is a main barrier to their acceptance and adoption of ICT (Pelgrum, 2001). In Syria, for example, teachers' lack of technological competence has been cited as the main barrier (Albirini, 2006). Likewise, in Saudi Arabia, a lack of ICT skills is a serious obstacle to integration of technologies into science education (Al-Alwani, 2005; Almohaissin, 2006). Empirica (2006) produced a report on ICT use in European schools. The data used for the report came from the Head Teachers and Classroom Teachers Survey carried out in 27 European countries.

Limited Time

Several recent studies indicate that many teachers have competence and confidence in using computers in the classroom, but they still make little use of technologies because they lack the time. A significant number of researchers identified time limitations and the difficulty in scheduling enough computer time for classes as a barrier to teachers' use of ICT in their teaching (Becta, 2004). According to Sicilia (2005), the most common challenge reported by all the teachers was the lack of time they had to plan technology lessons, explore the different Internet sites, or look at various aspects of educational software.

Becta's study (2004) found that the problem of lack of time exists for teachers in many aspects of their work as it affects their ability to complete tasks, with some of the participant teachers specifically stating which aspects of ICT require more time. These include the time needed to locate Internet advice, prepare lessons, explore and practice using the technology, deal with technical problems, and receive adequate training.

Conclusion

An online learning tool which is most times referred to as e-learning is not only about training and instruction but also about learning that is tailored to individuals. Different terminologies have been used to define learning that takes place online, a fact that makes it difficult to develop a generic definition. Authors agree that a single definition for online-learning has not yet been found. Terms that are commonly used to define online learning include e-learning, Internet learning, distributed learning, networked learning, tele-learning and telematics distributed learning virtual learning, computer-assisted learning, Web-based learning, and distance learning. It includes the delivery of content via Internet, Intranet, and Extranet, satellite broadcast, audio-video tape, interactive TV and CD-ROM. Nonetheless, the different terminologies point to a similarly conceived educational experience. All of these terms imply that the learner is at a distance from the tutor or instructor, that the learner uses some form of technology (usually a computer) to access the learning material, and that the learner uses technology to interact with the

tutor or instructor and other learners, and that some form of support is provided to learners

Online learning refers to the use of information and communication technology (ICT) to enhance and/or support learning in tertiary education. In essence, teachers' online learning tools requires the role of school principal as an instructional leader to adequately equip teachers for quality instructional delivery. This is very important because quality instruction improves the quality of manpower that can help in the development of the economy.

Suggestions

From the discussions above, the following are suggested:

1. The teachers of various secondary schools need to be trained on the use of online tools to enhance teaching and learning.

2. The government should provide the necessary technical support to ensure that effective application of online learning in public secondary schools.

3. There should also be enough time dedicated to online learning to ensure its effectiveness.

4. Principals should also ensure that the internet gadgets that used in online learning are well taken care of.

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