

Software Applications for Instructional Delivery among Business Education Lecturers in Universities

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Abstract

This paper reviews software applications for instructional delivery among Business Education lecturers in universities. Under this review, four software applications were considered which include; lesson planning software applications, lesson presentation software applications, classroom management software applications and assessment software applications. It was found that the availability of these software applications was confirmed and their effectiveness in aiding the design and presentation of instructional delivery was also established. It was also revealed that using software applications for instructional delivery cannot be ignored most especially in the 21st century. The paper therefore concluded that there is a need to ascertain the present training needs of Business Education lecturers in the usage of lesson planning software applications, lesson presentation software applications, classroom management software applications and assessment software applications in order to have an effective and efficient utilization of these software applications for instructional delivery.

Key Words: Software Application, Instructional Delivery, Business Education Lecturers

Introduction

Software refers to a general concept that connotes all programmes and instructions that are run on computer hardware. Daintith and Wright, (2016) defined software as a generic term for those components of a computer system that are intangible rather than physical, these include computer programmes and data stored or intended to be stored in a computer, preparatory design materials, computer programming languages and associated documentation and other information generated by a programmed computer and stored or transmitted electronically. A software may also include printed documentation that is accompanying a computer programme or database and object code programmes that are stored on tapes or disks (Bainbridge, 2010). Therefore, a software refers to the total programmes, instructions, designs and databases developed for full utilization of a computer system.

Computer software is making an immense contribution in the operation and performance of both educational and non-educational organisations. Even though there are various classifications of computer software, most of the authors in the field of computer science classified computer software into two broad classifications which include system software and application software or software application.

Software application is defined by Otuka et al. (2010) as a special package designed to perform a specific task which includes word processing, data processing, database management system, graphics, presentation,

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programming, learning, engineering, architectural, commercial, entertainment software applications. On the other hand, Haag et al. (2004) described software application as software that allows users to perform specific information-processing tasks which includes paying account payables, payroll management, inventory management, presentation and many others.

There is widespread use of software applications in various fields of human endeavour. Teachers, marketers, accountants, secretaries, engineers, doctors, journalists, architects, administrators, military and others extensively use software applications to explore different areas in their respective fields to obtain solutions to their daily challenges. Software applications are presently becoming highly important not only to teachers but also to school administrators, parents and students alike as it has the potential of revolutionizing the process of instructional delivery and research. The use of software applications by teachers has created a new and promising learning environment which not only facilitates instructional delivery and research, broadens their scope but also reduces many challenges associated with conventional instructional delivery and research.

After more than three decades, from the belief that computers may replace teachers' role, presently the talk on computers replacing the roles of teachers is less, instead, there are more conversations about computer software applications assisting teachers perform instruction, thereby transforming and facilitating instructional delivery (Doering & Veletsianos, 2009). Supporting the assertion, Arnett, (2013) argued that technology without teachers cannot improve our system of education and consequently, our system of education cannot meet the present needs of the society until we innovate beyond the traditional teaching, learning. Similarly, Kala-Prakash, (2015) asserted that applying innovative software applications in instructional delivery in the 21st century cannot be ignored by stakeholders in education particularly universities. In the same vein. Adu et al. (2013) concluded that sustaining education in Nigeria through traditional means remained difficult. This implies the use of modern means of instructional delivery. A few include the usage of computer software applications most especially among business education lecturers.

Business Education, as one of the branches of general education, has been defined by Jimoh-Kadiri and Bupo, (2011) as the inculcation of pedagogical and business competencies necessary for the teaching of business concepts, knowledge, attitudes and skills. Similarly, Business Education also refers to a specialized programme and a subset of Vocational Education that offers specialized instruction for general business orientation and office occupations (Asuquo, 2010). Therefore, Business Education is the inculcation of relevant competencies needed by individuals to enable them not only to teach business concepts, beliefs, ideas, knowledge and skills but also be able to perform effectively and efficiently in the business world. There are three broad areas/options in Business Education which include **Accounting, Marketing and Office Technology Management**. According to Ajunwo (2017), the government and other partners in education should provide the necessary ICT facilities in both hardware and software with the view to encourage their utilization in business education's instructional delivery. However, in spite of the paradigm shift in ICT, Business Education lecturers need adequate and effective training and development in order to meet the demands of the present society (Adanne & Adizi, 2018).

Instructional delivery is the interaction between the teacher, the learner, the curriculum and the knowledge, skills and values the learners will need for learning and associating with others in a dynamic world. Instructional delivery is a very complex process which needs careful and effective planning and implementation including the choice of teaching strategies and their effective usage towards achieving the

instructional objectives (Garba, 2018). Instructional objectives can best be achieved through utilization of ICTs by university lecturers in their instructional delivery and research activities, most especially in the current dispensation in which traditional teaching, learning and research strategies are being replaced with technology-oriented strategies. In consonance with the above assertion, O’Flaherty and Phillips, (2015) stated that instructional delivery must be geared towards adapting to ICTs in order to meet the present conceptual needs of the society. According to the United Nations Educational, Scientific and Cultural Organization [UNESCO], (2004), effective instructional delivery is concerned with using learners’ knowledge, beliefs, skills and background to satisfy their natural curiosities and expectations. Supporting the above assertion, Gray cited by Okenjom et al. (2016) asserted that effective instructional delivery is a systematic process of facilitating learning which aimed at providing change in the behaviour of students.

Among the software applications for instructional delivery which this paper reviews include lesson planning software application, lesson presentation software application, classroom management software application and assessment software application. Studies have confirmed the existence of these software applications that aid the design, delivery of effective instructional delivery (Monett & Weishaar, 2015; Avsar et al., 2016; Kala-Prakash, 2015; Marina, 2015). Despite the fact that availability of the above software applications was confirmed, the effectiveness of software applications in instructional delivery has also been established by various studies (Ardic & Isleyen, 2018; Doering & Veletsianos, 2009; Harris, 2011; Janowskin et al. 2014; Kala-Prakash, 2015; Neuhoff, 2000).

Lesson Planning Software Applications for Business Education Lecturers’ Instructional Delivery

Lesson plan refers to a prepared document that describes and outlines the lesson contents step-by-step and a list of specified tasks that students will undertake with the view to guide the teacher in delivering the lesson (Corner, 2020). In other words, a lesson plan is the teacher’s roadmap of what his students need to be taught and how it will be taught effectively during the lesson time (University of Tasmania, 2019). Similarly, a lesson plan is an instructor’s daily guide that describes what students need to learn, how to be tutored and how the learning is to be measured (Stauffer, 2019). According to Corner, (2020) the items included in a lesson plan are; lesson objectives, lesson materials, lesson activities, lesson goals and lesson feedback. In their effort at describing the importance of a lesson plan, Cicek & Tok, (2013) asserted that a lesson plan is an indispensable element towards achieving the national content standards as well as improving the overall outcome of teaching and learning. Lesson plan is of different types including; yearly lesson plan, weekly lesson plan, daily lesson plan, and substitute teacher plan (Farrell cited by Cicek & Tok, 2013). But in some countries, lesson plans and guide books are provided by the Federal Ministry of Education through its website where teachers can access and use them (Cicek & Tok, 2013).

Lesson planning is the systematic process of identifying and deciding what students should learn and how they should learn (Cicek & Tok, 2013). However, lesson planning is the best way for teachers in delivering an effective lesson (Corner, 2020). Lecturers are required to be up to date in the preparation of daily lesson plans which should be presented to the head of department and made available in the classroom for implementation (Doak & King, 1999). Presenting lessons using lesson plans is highly required by lecturers because Cicek and Tok, (2013) reported that review of empirical studies in many countries revealed the importance of lesson planning.

Lesson planning software applications are application software packages used for the design and preparation of lesson plans. These include; Lesson Plan Maker, Planner, PlanbookEdu, Plan board, MyLessonPlanner, Lesson Planner Advanced, Common Curriculum, StarPlanIt, Coach Diary, Plan4Me, Fun 5 Plans, Lesson Planning System (LPS), Instructional Planning Assistant System (IPAS), Eduwiki (EW), Support for Teachers Enhancing Performance in Schools (STEPS), Inquiry in Motion Dynamic Lesson Planning Tool (IIM), The Learning Designer (LDSE), Smart Lesson Planning System (SLP), TaskStream (TS), Phoebe Pedagogic Planner (Ph) and many others (Monett & Weishaar, 2015; Common Sense Media, 2020; Strickroth, 2019).

One of the avenues that business education lecturers can utilize software application in the process of instructional delivery is in lesson planning. In achieving this, there is a need for ascertaining their training needs with the view to determine their actual competency gaps in the usage of the lesson planning software applications in order to have a successful training programme.

Lesson Presentation Software Applications for Business Education Lecturers' Instructional Delivery

Lesson presentation is a systematic process lecturers follow in executing the instructional steps in delivering instructions to students. These steps can be followed through traditional face-to-face method or through the use of technology. Technology exists in today's classrooms with the view to support and improve teaching and learning process since various types of technology can be integrated into the classroom in particular and education in general (Motamedi, 2015). Similarly, technology has become a strong factor that is currently shaping our education landscape with many schools supporting the integration of technology into the classroom (Johnson et al., 2016). It was empirically established that using lesson presentation software applications in instructional delivery was reported to have improved teacher-students' interaction and increased students' understanding (Motamedi, 2015).

Lesson presentation software applications refer to the application software packages that create multimedia stacks of cards or screens which can effectively display or present a lesson in a sequential manner. These include; MS PowerPoint, HyperCard, HyperStudio, Digital Chisel, Director, SuperCard, Flash, Corel Envoy, AppleWorks, Producer, Prezi, Xerte and many others (Harris, 2011). However, lesson presentation software applications have been widely accepted as a means of instructional delivery in higher institutions of learning (De-Leeuw, 2011).

One of the avenues through which Business Education lecturers can utilize software application in the process of instructional delivery is in lesson presentation. In achieving this, there is a need for ascertaining their training needs with the view to determine their actual competency gaps in the usage of the lesson presentation software applications in order to have a successful training programme.

Classroom Management Software Applications for Business Education Lecturers' Instructional Delivery

Classroom management is a very wide concept that describes a variety of strategies that lecturers adopt in ensuring a conducive and supportive classroom environment for their students' learning. In other words, classroom management is the variety of actions that teachers carry out in creating a conducive environment

for students' academic and social-emotional learning (Evertson & Weinstein, 2006). In the words of Brophy "classroom management refers to actions taken to create and maintain a learning environment conducive to successful instruction, arranging the physical environment, establishing rules and procedures, maintaining students' attention to lessons and engagement in activities" (Korpershoek et al., 2014). However, the present society is highly technology driven that develops rapidly, in order to adapt to the paradigm shift, there is a need for schools to reform their approaches to education thereby providing reliable competencies through highlighting the significance of classroom management strategies towards achieving learning objectives (Jacob & Masuroi, 2013). Similarly, the ability of lecturers to organize their classroom and effectively manage their students' behaviour is critical to attaining positive educational outcomes (Oliver & Reschley, 2007).

Classroom management software application is a tool developed to help teachers in classroom activities in a learning environment where students predominantly use connected devices like desktops, laptops, palmtop or tablets (Nesbitt, 2016). In other words, classroom management software applications refer to the various application software packages that aid collaboration among lecturers, students and parents as well as recording students' attendance, performance, progress and controlling their behaviour among others. These include, Acadly, VersoApp, Net Control 2- Classroom, Google Classroom, TodaysMeet, Class Time Grade link SIS, ASAP Registration + Management Software, Moodle, CMS, MyKlassroom and many others (Kala-Prakash, 2015). However, Nesbitt, (2016) identifies the purposes of using classroom management software among educational institutions and teachers which include:

- To monitor the students' screens from a single computer
- To monitor students' internet activity in the real time
- To access the students' internet history
- To monitor the keyboard and create alert whenever students type inappropriate words
- To capture screenshots automatically from another device while in use
- To alert the school authorities for signs of extremism, radicalism, bad or any inappropriate behaviour

In the same vein, Patrick, (2018) identifies additional ways through which a classroom management software application can be beneficial in instructional delivery which include:

- It promotes collaboration among students in the classroom;
- It promotes students' engagements;
- It improves knowledge retention among students;
- It makes teachers' workloads light;
- It improves communication between students and their teachers.

Modern classroom management software applications are highly required in the 21st century instructional delivery in order to tap their potentials in a peaceful and productive environment (Faronics Corporation, 2012). However, according to the United Kingdom's Government Guidance Document, educational institutions

are informed that “it is essential that children are safe-guarded from potentially harmful and inappropriate online material” and that “children are safe from terrorist material” (Nesbitt, 2016). The recommendation of Oliver and Reschley, (2007) is indispensable in the process of achieving the above objectives contained in the Guidance Document who recommended that education institutions should provide appropriate policies, practices and incentives that will enable teachers acquire relevant knowledge and skills necessary for effective classroom management, thereby maximizing students’ learning opportunities, preventing anti-social behaviour and responding to the inappropriate behaviour.

However, effective education is the extent to which educational institutions are successfully achieving their educational objectives (Korpershoek et al., 2014). And it is a known fact that effective education cannot take place in a poorly managed classroom (Jones & Jones, 2012). Therefore, achieving effective education in our educational institutions in the 21st century requires effective classroom management by the lecturers who are instrumental in that respect. Supporting the above assertion, Faronics Corporation, (2012) indicated that effective 21st century lecturer integrating 21st century instructional resources into practice on a daily basis, requires 21st classroom management software and strategies. This assertion entails that for any lecturer to become effective in classroom management in the 21st century, he/she must be highly trained and professionally developed on effective utilization of the 21st classroom management software applications and strategies in order to effectively integrate these applications and strategies into 21st century instructional delivery. Therefore, the need for ascertaining the training needs of business education lecturers with the view to determine their actual competency gaps in the usage of the classroom management software applications remained sacrosanct.

Assessment Software Applications for Business Education Lecturers’ Instructional Delivery

The term assessment is defined in different contexts. Assessment in education refers to different tools and methods employed by lecturers to measure, evaluate and record students’ academic performance. However, assessment is a general terminology which comprises all strategies employed in gathering information about students’ knowledge, understanding, ability, motivation and attitudes (Ioannou-Goergiou, 2003). Similarly, Kizlik, (2014) defined assessment as a broad term which connotes all processes through which information relative to some identified goal or objective is obtained. In other words, assessment refers to the process of getting information used for decision making about students, educational policy, curriculum, schools and programmes (Nitko & Brookhart, 2011). Education remains one of the vital aspects of developing countries since through it the citizens struggle in developing their human capital, therefore, quality education requires good assessment (Marina, 2015). In order to maintain good assessment techniques in our educational institutions, employment of ICT based assessment tools is imperative. This is in line with the assertion of Marina (2015) who opined that since modern day educational institutions have become ICT driven in terms of their instruction, infrastructure and facilities, ICT can be used to facilitate assessment practice in different ways.

Assessing students’ progress is a regular practice of lecturers in every institution of learning. Therefore, the lecturers can utilize ICT as an assessment tool for administering tests, scoring tests, analysing the results and facilitating the assessment of students’ learning outcome (Marina, 2015). This is evident since electronic assessment (e-assessment) is gaining ground by the day in higher institutions of learning as a

means of assessing students. According to Shaheen et al. (2019), e-assessment has become an integral part of education and has remained the most reliable ICT tool for the assessment of not only key competencies but also complex competencies. In view of this, there is a need for universities to take advantage of its utility as rightly recommended by Marina, (2015) that educational institutions should strengthen their commitment in the development of a reliable assessment practice that can support both students, teachers and other stakeholders. Similarly, e-assessment has played a vital role in making students to be concentrated and motivated in performing a given task, and also allows the teacher to have access to highly standardized materials and make objective judgment (Shaheen et al., 2019).

Assessment software applications are the various application software packages used for conducting tests and examinations as well as grading students' performance. These include; Proprofs Training Maker, Easy LMS, HireVue Assessments, Test Grading, Test Invite, DigiExam, ProvExam, Transformica, OnDemand, Remark Test Grading, Codicity, Examsoft, Outmatch, Cognician Lead Quizzes, Psyft Personality Assessment, QuestBase, Questionmark, CodeMeet, FastTest, TutorPro Assessments, Brillium Solution, Assessmart, CustoMetrix, Digital Teacher, ExamN, FamilyMetrix, Gauge, HireSharp, iHiring, imPACT, Janison Insight, Journey, Kolbe Indexes, LearningBranch, Learnosity, Measured Success, Proctortrack, RCampus, testmakerhub, WeCP, Test Commander. Others include; Survey Monkey, Zoomerang, SurveyPro, HotPotToes, Quia, ExamBuilder, QuizStar, SurveyGold, Survey Gizmo and many others (Dawley, 2007; Marina, 2015). Various terminologies which include; e-assessment, Computer-Based Assessment (CBA), Computer-Based Testing (CBT), Computer administered testing and computerized testing are frequently used by educators as substitutes for one another to mean electronic assessment (Shaheen et al., 2019).

However, having highlighted the positive impacts of assessing students' electronically, business education lecturers can utilize some of the assessment software applications in assessing the academic achievement of their students objectively. In achieving this, the need for training the lecturers on how to use the assessment software applications effectively and efficiently remains highly important.

Conclusion

In order for business education programmes to have an effective instructional delivery in the 21st century, there is a need to ascertain the present training needs of business education lecturers in the usage of lesson planning software applications, lesson presentation software applications, classroom management software applications and assessment software applications. This will assist in conducting a successful training programme aimed at providing competent business education lecturers with the relevant knowledge and skills for effective instructional delivery.

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