An Assessment of Computer and ICT Skills at Botswana Open University: Implications of ICT in Business Subjects

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Abstract: This paper presents a study that focused on assessing computer and ICT skills of business subjects' learners at Botswana Open University (BOU). The study explored the levels of computer skills; existence of ICT skills and perception of business subject learners on the adoption and use of ICT skills for teaching and learning. A sample size of 223 participants from BOU's five regions was studied and data was collected quantitatively using survey questionnaires. Descriptive statistics were used to analyse the data. The results showed that most of the respondents had average ability to navigate on the e-learning school platforms (E-library, portals, websites, etc.) and average awareness of the business learning software and applications; they were familiar with most MS package elements, MS Word, Excel, PowerPoint and Publisher. They were familiar with the use of emails, social sites and blogs as well as internet searching and browsing. Results also showed that the respondents understood the basic functions of computer hardware. The study also revealed that respondents needed improvement in the use of ICT tools for learning their business subjects, and that the improvement of the use of ICT tools would enhance their understanding of the subject matter. Respondents cited poor internet connectivity and unreliable power supply, as well as slow internet connectivity, as some of the reasons for their poor ICT skills in teaching and learning ICTs.

Keywords: information technology, business development, ICT skills, innovation, BOU.

Introduction

Business Education is education for and about business or training in business skills (Esene, 2012). Okoli (2010) thought of it as that aspect of the total educational programme that provides the knowledge, skills, understanding and attitudes needed to perform effectively in the business world as a producer and/or consumer of goods and services that business offers (Bilyaminu, 2011). Business Education is an important part of general education which emphasises skill acquisition for office use. It plays a pivotal role in nation development. For optimum educational teaching and learning of business education courses, there must be adequate provision of Information and Communication Technology (ICT) tools (Okoro, 2013). Information and Communication Technology (ICT) is an indispensable tool of the twenty first century digital age.

Business Education therefore must be understood as a programme of instruction that consists of two parts, namely, office education — a programme of vocation for office careers, and general Business Education, which provides the recipients with competencies and skills needed in managing personal business affairs and using the services of the business world (Ezenwafor, 2012). An individual who receives training in Business Education can easily develop potential for entrepreneurship pursuits especially in this era of economic melt-down and unemployment (Ibeneme & Ikegwuani, 2010).

Business Education, which is offered at the universities and colleges of education, is concerned mainly with the development of relevant and saleable skills and knowledge that would enable an individual to function effectively in the world of work (Onojetah, 2012). Business education programmes should not only be for learners but are also required to train skilled business educators in higher and secondary institutions as well as to be quick-witted for economic growth (Oluwalola, 2021).

Anderson and Glen (2003) discoursed that ICT in the modern dispensation improves technological advantages in accessing, gathering, manipulating and presenting information. James Okoro, in September of 2013, submitted that Information and Communication Technology is a system that is used in the processing, storage and transfer of information which can be audio, visual or in the form of numbers, letters and pictures. Igberaharha (2009) had thought of ICT to involve the use of networks, expert systems, and artificial intelligence and these have over the years come to be known as electronic commerce or electronic business. Radio-assisted instruction (RAI), television-assisted instruction (TAI), computer-assisted instruction (CAI), internet-assisted instruction (IAI) are some of the dimensions of ICT-assisted instruction (UNESCO, 2014).

Oluwalola (2020) put it in a more succinct manner, that ICT is the form of education enhancing learners with relevant digital skills, which enables such individuals to contribute profitability to societal development. ICT have over the years enhanced learning in the twenty first century as it has expanded learning to go beyond the classroom walls. The specialty of business studies has not been spared the ICT impact both in developed and developing countries, where learners and teachers are enjoying and learning the application of ICT in schools. Akpan (2014) pointed out that in the contemporary developed and developing countries, ICT has enhanced both teachers' and students' performances in tremendous measure.

In the Western world, the American Vocational Association (AVA, 1980) related the connection of ICT with Business Education programmes to be a broad and comprehensive discipline that encompasses knowledge, skills, vocation and aptitude needed by all citizens in order to effectively manage their personal businesses and also function in the economic system. Ibeneme and Ikegwuani (2010) enhanced this thought to also include development potential for entrepreneurship pursuits, especially in this era of economic melt-down and unemployment.

Information and communication technology (ICT) has become an important source of innovation and improvement of efficiency for many sectors across the globe, particularly the education sector, where the application of ICT has become a critical part of the learning process for university students both outside and inside the classroom setting. The application of ICT in teaching and learning has raised considerable concern among individual global governments and other education governing institutions who have made it emphatically clear in their various educational policy documents.

UNESCO (2019) submitted that, "the rapid breakthroughs in new information and communication technologies then was going to change the way knowledge would be developed, acquired and delivered and also offer opportunities to innovate on course content and teaching methods and to widen access to higher learning". Youssef & Dahmani, (2008) comment that ICT has a great influence on teaching and learning in higher education. It provides opportunity for personalised, flexible and asynchronous learning and shifts the learning from teacher centered to student centered and, hence, is a catalyst for reforms about classroom, educational institute, community and system. UNESCO (2019)

submitted that ICT enhances the learning of students, helps students to learn new skill sets, promotes social mobility, helps citizens to compete in a worldwide economy, and thus has a multiplier effect across the education system.

ICT integration implies extending the use of computers beyond specialist courses and individual projects to the everyday practice of mainstream schooling (Ruthven, Hennessy, & Brindley, 2004). It was reported in Fathi Vajargah and Saadattlab (2014) that computers have been in use for administrative purposes in most schools worldwide for the past several decades but were inducted into the classroom during the 1990s.

Most African countries in the 2000s were still struggling with operating at full capacity in universities and other learning institutions where ICT utilisation was concerned. In a study done by Okoli (2010), such constraints as inadequate textbooks and other teaching materials and the impediments in the power sector were contributing to the poor utilisation of ICT and consequently their utilisation in business studies. Onojetah (2012) also submitted that inadequate infrastructure, inadequate funding, acute manpower shortage, lack of access to utilise ICT resources at will and non-availability of computer laboratories were also contributing to the list of ICT utilisation constraints.

Despite these challenges business education must be seen as the acquisition and development of attitudes, skills and competencies for the efficiency of economic systems (Azih & Igboke, 2017).

Onasanya (2010) observed that most teachers in Europe employed high ICT skills at various levels of teaching for effectiveness and proper comprehension by students. Lecturer's efficiency in Nigeria shows that there is a missing link between the utilisation of ICT resources and the competency of the lecturers (Abdulraham, 2018). Batane (2013) and Mojalane and Diraditsile (2019) note that Botswana does not have sufficient quantities of teachers who are trained in using technology for teaching and learning, which has resulted in the lack of student-centric classrooms. It therefore implies that the students are highly likely to have poor ICT skills.

Findings from a study done by Nwaiwu (2009) in Nigeria indicated that, "that Business Education students perform poorly in ICT courses and most Business Education graduates are not competent in ICT skills." Botswana learners are fairly poor at most ICT skills (Diraditsile & Samakabadi, 2018). Himat (2020) points out that ICT helps young people become sophisticated problem solvers and that if technology were harnessed well in the classroom, whether physical or virtual, teaching instructions would be more motivating and constructive.

This unsatisfactory manner of practice in the delivery of business programmes in line with technological innovations has created a thirst to address the challenges with a realisation that attainment of the national technology objectives and good performance of the graduates in the business world could only be achieved with proper ICT investment and commitment. Brown (2002) argued that, "computers enhance teaching and learning via: Presentations, more opportunities to practice and analyze, and more access to source material via Internet. Computers and Internet connectivity has been found to enhance communication and interaction between colleagues within faculties, between classmates, and between faculties and students".

Problem Statement

There is a widespread belief that ICT can and will empower teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to student-centered (see, Nasreen, 2013; Paul, 2017). It is also believed that this transformation will result in increased learning gains for students, creating opportunities that allow learners to develop their creativity, problem-solving abilities, information reasoning, communication, and other higher-order thinking skills (Hamilton-Ekeke & Mbachu, 2015).

It is such views that informed the Botswana Education & Training Sector Strategic Plan (ETSSP 2015-2020), which puts out initiatives to help in the adoption and integration of ICT in the education system and other documents such as Vision 2036, which accommodates integration of ICT in the education system and that is through the goal of producing globally competitive human capital, relevant in the era of ICT and beyond. Various policy documents have also supported this vision. Many other documents speak to the same goal, documents such as the NDP 11, NHRDS 2009 and Maitlamo 2012, amongst the many policies aimed at addressing usage of ICT in education.

It is also worth noting that there is a paucity of research and published literature on the assumption of the levels of computer and ICT skills possessed by Open School learners of business subjects Nwaiwu (2009) that reveals that Business Education students perform poorly in ICT courses and most Business Education graduates are not competent in ICT skills. Mogwe and Balotlegi (2020) in their investigation of the "Barriers of information communication technology (ICT) adoption in Botswanas' primary education" found that most learners lacked ICT skills. Therefore, this study sought to fill this gap to find out how these learners navigate learning in both open and distance learning modes, given the assumption that they are fully equipped with some ICT skills in abundance.

Research Objectives

The main aim of the study was to investigate what computer and ICT skills the business subjects' learners possess for teaching and learning at BOU's Open School. The variables investigated in this study were computer and ICT skills, respectively, and the utilisation of these skills among business subjects' learners in Open School. The following three research questions were posited for this study: (i) What are the levels of computer skills among business subject learners at BOU's Open School? (ii) What percentage of these learners possess 21st-century ICT skills necessary for teaching and learning? (iii) How do they perceive the value of ICT skills for teaching and learning? An attempt is made in this paper to answer the above questions.

Literature Review

Bilyaminu (2011) views business education as an aspect of a total education programme that provides the knowledge, skills, attitudes and understanding needed to perform in the business world as a producer or consumer of goods and services. According to Adamu (2014) business education programmes provide students with knowledge, skills, attitudes, and values required for graduates' gainful employment or self-reliance. Jimoh and Umoru (2020) viewed business education as a conglomerate of courses concerned with the acquisition, development and inculcation of the proper values for the survival of individuals and society. Business education must be viewed as an integral part of vocational and technical courses highly recognised as a means of empowering youth for their

sustainable livelihood and social-economic development. It is a programme with the capacity of delivering the knowledge, skill and philosophy that influence the development of attitudes and behaviors likely to impact on the actualisation of educational goals.

ICT skills go beyond the mere use of computers; according to Akintunde (2004) ICT skills entail making valuable use of online resources and basically being literate in ICT or information as needed. ICT skill includes the ability to totally comprehend and acquire a whole lot of capacities, which include recognising, spotting and evaluating information as well as making effective use of it (Nikitakis-2007).

In a study by Händel et al. (2020) which investigated students' digital devices utilisation and their own assessment of e-learning competency, the study concluded that males are more likely to utilise digital devices than females. It also indicated that students think they do not have the necessary level of ICT skills. In another similar research study by Aristovnik et al. (2020) that covered 30,383 students from different countries, most students appeared to lack computer skills as indicated by their inability to track their progress and their continued struggle to fully accomplish the ICT associated tasks.

In research done in the USA by Liang et al. (2006) which investigated how confident 145 teachers were in using their ICT competencies, it was discovered that most of them evaluated their competency level as minimal, even though participants considered themselves to be computer literate. On the other hand, the participants showed that they had a positive attitude towards computers but that they lack confidence in their own ICT skills,

A study by Kipsoi et al. (2012) does indicate that most countries in the sub-Saharan Africa have yet to embrace ICT in schools. Most schools view ICT as one of the technical subjects and not as a tool which can be integrated into teaching and learning activities. If utilised appropriately ICT tools such as computers can help learners enhance their analytical and creative skills and at the same time enable them to collaborate with their peers.

Oluwalola (2020) noted that most institutions are suffering from inadequate infrastructure facilities coupled with incompetent lecturers for teaching those ICT related courses. This may result in inadequate utilisation of new technology facilities by business education teachers, which could result in producing graduates with only theoretical knowledge and less experience in practical courses that require the application of ICT skills.

Siddiquah and Salim (2017) carried out a study where they noted that the majority of the students have access to computers and internet facilities and did possess some skills such as knowledge of Microsoft Word, Microsoft PowerPoint, searching and browsing on the internet, social networking, e-mail, uploading files, and video games. Haywood (2003) mentioned some core ICT skills, which include knowledge of spreadsheets, word processors, databases and presentations. Consequently, Siddiquah and Salim, 2017 noted that the students engage themselves in doing other computer related activities instead of focusing on their academics. Odede & Enakerakpo, (2014) noted that undergraduate students possess adequate ICT skills and can efficiently make use of the internet. Conversely, amidst these various skills possessed by the students, it is obvious that they lack other skills such as proper use of e-library, discussion forums and blogging.

Botswana, like most other countries in the world, invests heavily in the provision of secondary education. The MOBE report of 2018 highlights that there were 208 junior secondary schools and 32 senior secondary schools, each of which were equipped with a computer laboratory, mainly to teach all students a subject titled Computer Awareness (Mojalane & Diraditsile, 2019). Furthemore, in a study that was done by Totolo (2014), it was revealed that the use of Information Technology in schools has influenced some changes in digital scholarship, which is a modern technology applied in teaching, learning and research activities. Totolo (2014) however, found that the challenge in adopting technology in education was associated with factors such as computer anxiety, digital literacy and a lack of ease in using computers.

The above information on the education system is very important to consider on the grounds that BOU's Open School gets most of its learners from conventional government schools at junior or senior secondary pathways, who are not able to proceed to the next levels of their studies either at form three and/or form five, as well as those who might have dropped from school due to various personal reasons. Considering the foregoing, it is important to note that Botswana Open University has five regional campuses and offers both tertiary education and secondary school equivalency. The 2017 enrolment of business subjects' leaners across the five regions stood at 1,310 for JC (Commerce and Accounting & Commerce and Office Procedures) while BGCSE stood at 891 (Commerce); 229 (Accounting) and 17 (Business Studies), all totaling 1,137 (BOU, 2017). Batane (2013) and Mojalane and Diraditsile (2019) note that Botswana does not have sufficient quantities of teachers who are trained in using technology for teaching and learning, which has resulted in the lack of student-centric classrooms.

Moreover, Christensen (2014) and Tabulawa (2013) argue that, for a revolution to take place in education, changes must occur that will disrupt the status quo. This means that disruptive innovation such as the use of ICT in teaching and learning will change the way that Botswana learns. Therefore, the argument that runs down the gamut of this paper is that the status quo in Botswana's classrooms lacks constructivism teaching; a teaching method that embraces technology updates, where a teacher positions himself/herself as being a facilitator and not a fountain of knowledge, as hailed by the traditional teaching that this nation and other developing countries in the world are used to.

Furthermore, the high degree of ignorance among the general public regarding teaching with emerging technology and understanding the discipline of teachers who teach with technology has seemingly grown in Botswana. Nenty (2009) observes that quality teaching in Botswana has been lost. Moreover, the poor quality of textbooks, teaching methods not matching 21st-century learners and teachers' experiences, as well as the lack of teachers' motivation and parental involvement in the teaching/learning process, has contributed to the poor teaching Botswana has faced over the past several years. Noticeably, what results in poor quality teaching in most schools is the lack of technological applications in classrooms as a means of democratising education (Batane, 2013).

Batane (2013) concurs with Nenty (2009) on the absence of technology-led innovations in most of Botswana's educational institutions, which would enhance teaching and translate it into the expectations of the 21st-century classroom. The ministry of education has not encouraged its partners to look at emerging technological innovations as one of the possible teaching modes in Botswana (Totolo, 2014). Despite government policies encouraging the growth of ICT uptake in the nation's educational systems, there remains a gap leading to the failure of harnessing emerging technologies in

schools, which lies in the fear that these learning institutions have for it to be in the hands of students. According to Hulela et al. (2014), maintaining school policies that keep technology out of schools is worrisome.

In a study by Alpheus and Balotlegi (2020), with a sample from 60 schools in Botswana, they found that the learners were not proficient in the use of computers and that most of them lack basic skills of using ICT related technologies which has become a thorny issue affecting adoption and usage of ICT skills in primary schools in Botswana. Leteane et al. (2015) in their study about ICT adoption in primary schools in Botswana produced similar findings that most learners and teachers had poor ICT skills to operate applications such as Microsoft Word, PowerPoint and/or Excel. Many individuals (68%) showed they have limited personal experience with ICT. In a similar study, Mogwe, Keolopile and Seelo, (2018) indicated that many teachers in both primary and secondary schools in Botswana lack the basic ICT skills or are not competent enough in ICT skills. This skill deprivation is caused among other factors by lack of proper infrastructure, such as functional ICT labs and availability of trained personnel to assist in ICT skills.

Methods

Research Methodology

Descriptive survey design was used in this study. The research was seeking to assess the computer and ICT skills at the Botswana Open University and see how these implicate ICT in business studies. This design enabled the researcher to generalise the findings to the larger group.

Population and Sample

The population of the study was the open school BOU learners of business subjects from Gaborone, Palapye, Francistown, Kang and Maun BOU regions, with a specific sample size of 223 participants who were studied. The sample was selected using regional centre registers for students who were studying the business subjects and available for pilot study. We recruited 60 students from each region to total 300 for the pilot. Bulk messages were sent using the Botswana Open University (SMS) system to notify the students to turn up for the questionnaire uptake, and by using the registers that were being used by the regions themselves, the researcher was able to administer the survey to the 223 students who appeared.

Research Tools and Techniques

A questionnaire was used to collect data for the study. The instrument of data collection was subjected to content validity. Before taking the instrument to the regions, in order to get validity of the tool, it was checked by two experts in the research office and also trail testing of the tool was done on 50 students of Gaborone government school, called Ikageng Junior School, which is one of the schools presenting business subjects.

Data Collection and Analysis

The survey questionnaire was self-administered by the researcher using the drop and pick method during the learners' tutorial sessions. Given the nature of the study, which mainly involved descriptive statistics, the data collected was analysed using SPSS version 23. The respondents were asked to choose from the following description ranges: 1 = very good; 2 = good; 3 = acceptable, 4 = poor and 5 = very poor.

Results

Demographic Details

Table 1: Summary of the demographic information of the respondents

Variable	Categories	Frequency	Valid %
Gender	Male	126	56.5
	Female	97	43.5
Age Group	Below 16 years	21	9.5
	17 to 20 years	172	77.5
	21 to 25 years	15	6.8
	Above 26 years	15	6.7
Level of Study	JC	181	81.2
	BGCSE	42	18.8
Region	Gaborone	81	41.1
	Maun	47	21.1
	Kang	51	22.9
	Other	44	19.7

Source: research data

The results of the study revealed that a majority (56.5%) of the respondents were males as compared to their female counterparts, represented by 43.5%. A significant majority (77.5%) of the respondents were within the age group of 17 to 20 years. The results further revealed that 81.2% of the respondents were currently in JC level. Lastly, the results revealed that 41.1% of the respondents indicated that their center is located in Gaborone.

Level of Computer Skills

Table 2: Level of computer skills on business subject learners

Item Statement	Mean	Standard Deviation	N
Ability to navigation on e-learning platforms in my school (e-Library, portals, website)	2.36	0.986	220
Business education software and application (Excel, spreadsheet, PowerPoint) awareness	2.32	1.020	220
Overall scale	2.51	0.939	220

Source: research data

Table 2 presents the responses to the questions relating to the level of computer skills of the learners. Thus, the respondents were requested to respond to two questions thereof. The results revealed that the respondents rated their ability to navigate on e-learning platforms in their school (E-Library, portals, website) with a mean figure of 2.36, as shown by 220 of the respondents and their business education software and application awareness, a mean figure of 2.32 as shown by 220 of the respondents, which can be categorised as "good" (item scores between 1.51 and 2.50), with a standard deviation of 0.986 and 1.020, respectively. The overall mean value for the level of computer skills on the business subject learners' scale was found to be 2.51, with a standard deviation of 0.939, which is classified in the "not sure" category.

The Perceptions of ICT Skills of the Students

Table 3: Students' perceptions on ICT skills

Statements	Mean	Standard Deviation	N
I understand the basic functions of the computer hardware.	3.51	1,004	210
I use ICT tools to learn my Business Subject(s)	2.82	1,148	213
I enjoy learning by reading from the computer screen	3.42	1,265	212
Poor internet connectivity, power computer conditions as well as slow internet as some of the reasons for poor ICT skills in teaching and learning ICT.	3.05	1,346	211
I have an online friend I have never met physically.	3.13	1,390	210
I am comfortable in browsing the internet (WWW) to collect learning materials in my business subject.	3.49	1,246	213
I am able to use a phone app to search business subject materials for my study.	3.46	1,247	211
I think that it is important for me to improve my use of ICT tools for learning my business subject	4.06	0,963	214
I think that using ICT tools and resources can enhance my learning of business subjects	3.81	1,029	209
I want Botswana Open University to start teaching us online and stop printing study booklets	3.68	1,350	213
Overall scale	3.86	0.696	214

Source: research data

The results presented in Table 3 reveal that responses that were in the "agree" category (item scores between 3.50 and 4.49 to the statements) were four and those that were categorised as "not sure" (item scores between 2.51 and 3.49) were a total of six. The, "I think that it is important for me to improve my use of ICT tools for learning my business subject" response had the highest mean of 4.06 from 214 responses, in the "Agree" category, followed by "I think that using ICT tools and resources can enhance my learning of business subjects" response, with a mean of 3.81, "I want Botswana Open University to start teaching us online and stop printing study booklets" had a mean of 3.68 and, "I understand the basic functions of the computer hardware" had the lowest mean of 3.51 from 210 responses. "I am able to use a phone app to search business subject materials for my study" had a mean of 3.46, I am comfortable in browsing the internet (WWW) to collect learning materials in my business subject" had a mean of 3.49, while "Poor internet connectivity, power computer conditions as well as slow internet as some of the reasons for poor ICT skills in teaching and learning ICTs" had the lowest mean of 3.05 as a measure of reactions to their ICT skills. The overall mean value for the ICT skills scale was found to be 3.86, with a standard deviation of 0.696, which is classified in the "agree" category.

Discussion

The results from Table 1 in the results section reveal that a majority (56.5%) of the respondents were males as compared to their female counterparts, represented by 43.5%. A significant majority (77.5%) of the respondents were within the age group of 17 to 20 years. This was a representative age group and the availability of more males than females may be indicative of the fact that males are more

comfortable with the use of ICT in business subjects as much as it may indicate an interest in business subjects in males more than females. This assertion is in agreement with the findings of a study by Händel et al. (2020), which investigated students' digital devices utilisation and their own assessment of their e-learning competency. The study concluded that males are more likely to utilise digital devices than females.

Table 2 revealed that the respondents rated their ability to navigate on e-learning platforms in their school (E-Library, portals, website) with a mean figure of 2.36 as shown by 220 of the respondents and their business education software and application awareness, and a mean figure of 2.32 as shown by 220 of the respondents, which gives an overall mean value for the level of computer skills on business subject learners' scale of 2.51, with a standard deviation of 0.939, which is classified in the "not sure" category. This, on average, scores the skills to be not very good. Similar findings from a study done by Nwaiwu (2009) in Nigeria showed that "Business Education students perform poorly in ICT courses and most Business Education graduates are not competent in ICT skills." Which was also a similar finding from a study done by Diraditsile and Samakabadi, (2018) which found that Botswana learners are fairly poor at most ICT skills.

The study also set out to investigate the perceptions of ICT skills the learners possessed and in Table 3 in the results section it was revealed that the "I think that it is important for me to improve my use of ICT tools for learning my business subject" response had the highest mean of 4.06 from 214 responses, in the "Agree" category, followed by the "I think that using ICT tools and resources can enhance my learning of business subjects" response with a mean of 3.81. The "I want Botswana Open University to start teaching us online and stop printing study booklets" response had a mean of 3.68 and "I understand the basic functions of the computer hardware" had the lowest mean of 3.51 from 210 responses. "I am able to use a phone app to search business subject materials for my study" had a mean of 3.46, and "I am comfortable in browsing the internet (WWW) to collect learning materials in my business subject" had a mean of 3.49, while "poor internet connectivity, power computer conditions as well as slow internet as some of the reasons for poor ICT skills in teaching and learning ICT" had the lowest mean of 3.05 as a measure of reactions to their ICT skills. The overall mean value for the ICT skills scale was found to be 3.86, with a standard deviation of 0.696, which is classified in the "agree" category.

This is indicative that the learners are utilising ICT, however, the majority wish to improve their skill, an assertion similar to that submitted from a study done by Mojalane and Diraditsile, (2019) where it was submitted that each of the schools who participated in their study were equipped with a computer laboratory, mainly to teach all students a subject titled Computer Awareness but the poor ICT skill levels of the learners could be attributed to the "I want Botswana Open University to start teaching us online and stop printing study booklets" response, which had a mean of 3.68 and could be indicative of the fact that the teachers have poor ICT skills which could translate into poor ICT levels of the learners. A study by Mojalane and Diraditsile (2019) noted that Botswana does not have sufficient quantities of teachers who are trained in using technology for teaching and learning, which has resulted in the lack of student-centric classrooms. Abdulraham, (2018) also submitted that lecturers' inefficiency in Nigeria shows that there is a missing link between the utilisation of ICT resources and the competency of the lecturers. These studies support the findings of this study as

regards the poor ICT skills of the teachers. Christensen (2014) and Tabulawa (2013) argue that, for a revolution to take place in education, changes must occur that will disrupt the status quo.

Table 3 also emphasises that fact that the learners understand the basic functions of the computer hardware and were comfortable in browsing the internet, indicative of their access to computers, results similar to those from a study by Siddiquah and Salim (2017) where they noted that the majority of the students have access to computers and internet facilities and did possess some skills such as knowledge of Microsoft word, Microsoft PowerPoint, searching and browsing on the internet, social networking, e-mail, uploading file, and video games.

The study also reveals that poor internet connectivity and electric power conditions, as well as slow internet as some of the reasons for poor ICT skills in teaching and learning ICT, a position similar to that of Oluwalola, (2020) who noted that most institutions are suffering from inadequate infrastructure facilities, coupled with incompetent lecturers for teaching those ICT related courses. This may result in inadequate utilisation of new technology facilities by business education teachers, which could result in producing graduates with only theoretical knowledge and less experience in practical courses that required the application of ICT skills.

Totolo (2014), submitted that Information Technology in schools has influenced some changes in digital scholarship and is increasingly becoming a modern technology applied in teaching, learning and research activities. He, however, noted that the challenge in adopting technology in education was associated with factors such as computer anxiety, digital literacy and a lack of ease in using the computers.

Conclusion and Recommendations

ICT in business subjects can usher in fundamental structural changes that could be integral to achieving significant improvements in teaching and learning business subjects. ICT at BOU is not yet fully implemented despite the massive efforts being put up by the government. This study established that most learners already have access to computers and the internet as well as a few unperfected ICT skills, an indications of a movement in the right direction. It must be understood that infusing ICT learning programmes in business subjects not only supports learning 24 hours a day, seven days a week but builds 21st-century skills; increases student engagement and motivation; and accelerates learning, too.

This study also established — and is in agreement with other scholars — that most teachers were not very confident to deliver business lessons using various ICT platforms; this is in addition to the fact that there were fewer trained teachers/lecturers who were fully confident to utilise ICT in their teaching. This study therefore recommends training to teachers, tutors and lecturers on the pedagogy integration of computer and ICT tools and how to use them creatively, incorporating them into a participatory teaching approach in Open Schooling and BOU's management should urgently ensure that ICT facilities/infrastructure are available for learners' use.

Furthermore, Open Schooling should integrate ICT into learning programmes to help learners improve necessary skills that empower them for the jobs of tomorrow. This helps them to prepare for a good future, which is largely dependent on ICT and computers. Moreover, BOU's management should have ICT training centres in all five regional campuses for Open Schooling, or involve ICT in

Open Schooling curricula, to enable learners to use the opportunity to maximise their computer literacy in such a way that they can accept and use ICTs in their everyday studies.

This paper also recommends that BOU should start differentiating between the occasional use of technology for supporting traditional methods of teaching and learning, which amounts to techno-centrism, and integrating ICT for improving the standards of teaching and learning. Open Schooling tutors need to be prepared for communicating and teaching through various media, and subject specialists in Open Schooling need to translate the traditional teaching learning resources into online pedagogy. In this era of teaching and learning, learners need software for different media, online teaching and learning, distributed learning, the use of Web 2.0 technologies, open resources (OERs), Learner Management Systems and conferencing through various modes and as a way of matching the expectations from the learners.

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