

E-Readiness Of Teachers To Integrate Ict In Teaching And Learning Post Covid 19 Pandemic: Case Of Eswatini

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ABSTRACT

The current crisis in Eswatini brought by the Covid 19 pandemic calls for the education sector to move digital education from the peripheral role in leaning delivery to the center of the process of teaching and learning. Digital teaching and learning has become mainstream overnight. All schools were closed and the face-to-face teaching and learning approach was stopped indefinitely. This prompted new direction in research and innovations. The study was therefore conducted to take a snapshot on the E-readiness of Agriculture teachers to integrate ICT in their teaching post the Covid 19 pandemic. A survey research design employing the quantitative approach was conducted with all (N=284) agriculture teachers in Eswatini to (1) describe the E-readiness of Agriculture teachers to integrate ICT in their teaching and learning, (2) identify the support given to teachers towards ICT integration available in schools, and (3) to describe the teachers' educational level and courses related to ICT integration in teaching. A valid and reliable instrument was designed with a Cronbach Alpha reliability coefficient of ($r = .80$) was used to collect data. Frequencies and percentages statistics were used to analyse data. Findings associated with teachers' readiness to integrate ICT in their teaching were: (1) teachers had personal laptops and were using them to support teaching of agriculture, (2) teachers perceived themselves as digitally proficient in using ICT tools to facilitate teaching and learning, (3) teachers had free access to computers in schools, (4) more than half of the schools offering agriculture had internet connectivity, (5) ICT was offered as an examinable subject in the majority of schools, and that (5) teachers had taken basic computer course their pre-service teacher preparatory training. It is recommended that all teacher training institutions design and offer courses on instructional technology to equip all teachers in schools to use technology to enhance their teaching skills.

Keywords: ICT integration, E-Readiness, ICT integration support activities, Agriculture Teachers.

INTRODUCTION

The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research (Yilmaz, 2011). In a rapidly changing world, basic education is essential for an

individual to be able to access and apply information. Such ability must find and include ICTs in the global village (Ndibalema, 2014). Teachers are key implementers of curriculum through classroom, practices and are responsible to develop their own teaching skills and methods by being exposed to ICT tools. In Swaziland, the use of ICT in many settings is increasing rapidly. As a result, ICT education has become basically every society's effort to teach people under various settings because people need valuable knowledge and skills about computing and communications devices (Dlamini & Dube, 2014). Ntshangase (2010) pronounced that one of the targets of the Ministry of Education and Training (MoET) towards ICT introduction was to ensure that 70% of schools will have computer laboratories with internet access by 2012 and qualified teachers.

Shongwe (2012) reported that in order to compete in a competitive global economic environment, a highly skilled and educated workforce with aptitude and skills in the application of ICT is essential. The Ministry of Education and Training has thus continued to craft and execute programmes with the hope to achieve its mission, that is:

to provide relevant and affordable education and training opportunities for all age groups of the entire populace of the Kingdom of Swaziland in order to develop all positive aspects of life for self-reliance, social and economic development and global competitiveness (Ntshangase, 2010: p.5)

ICT Education in Swaziland

Government's mission is to ensure the use of ICT in the education system is strengthened to expose all children who leave the system to new technologies, by making sure that ICTs are deployed and used at all levels of the formal school education system to create a technology – driven, knowledge – based society; ensure that a gender responsive ICT curriculum to be offered in all schools is developed. Government's priorities are schools in rural communities and special attention in the provision of basic ICT infrastructure is being provided. This is in line with the aspirations of the Ministry which are enshrined in its mission and vision statements. One key issue that came up was the use of ICT in education, in teaching/learning and management of the education system (Dlamini, 2012).

The overall and overarching goals of ICT in education include: promotion of access to the use of ICT by all citizens of the country, students and teachers at all levels and forms of education; promotion of ICT use in management and administration of education at all levels and forms; to ensure equitable distribution and management of educational resources from school level to national level (Ntshangase, 2010).

LITERATURE REVIEW

ICT in Agricultural Education

Miller and Williams (2003) asserted that Agricultural education in secondary schools is part of the infrastructure of this remarkable system. For agricultural education to remain viable, new ways need to be generated to deliver instruction in the total secondary agricultural education program. Miller et al., further stated that instructional technology can help keep educational programmes aligned with new developments in agriculture. Instructional technology is a media born of the communication revolution which can be used for instructional purposes.

It includes television, videotapes, computers, data lines, and other media. The day is near when every child will stretch a hand over a keyboard and reach every book ever written, every painting ever painted, and every symphony ever composed.

South African Institute of Distance Education (SAIDE) (2010) described E-readiness as the measure of the capacity of a community to use ICT by assessing the physical, management, social and educational conditions in place that lead to receptivity to the introduction of ICT. Gauteng Department of Education (DGE) (2011) further states that E-readiness examines the factors in place when the technology is placed in a school. Some related factors to describe E-readiness include but not limited to the following: (1) school ICT capacity to provide and maintain the basic infrastructure that support ICT, (2) learning environment that can support achievement of the outcomes of the national curriculum, (3) learner ICT capacity to use ICT in everyday life, and (4) teacher ICT integration competency where the teacher exploits the strengths of ICT to become more efficient and effective as a teacher.

Mndzebele, Dlodlu and Mndebele (2018) established that digital fluency in using ICT, sharing digital contents with learners, owning a personal computer and internet connectivity were determinants of ICT were factors influencing ICT integration in teaching. Qasem, and Viswanathappa (2016) argued that teachers must develop not only computer skills but also proficiency in using a variety of technology tools to solve problems, make informed decisions, and generate new knowledge related to their professional performance. The technology-enhanced learning environments offer many methods and tools, such as facilitating flexibility in the learning environment.

In South Africa Govender and Dhurup (2014) reported computer technology having a positive influence on teaching and learning processes and argued that with the use of computers in the classroom, schools would become more learner centred and that more individualised learning would take place than ever before. The use of computers leads to learners being able to collaborate, to use critical thinking and find alternative solutions to problems. When used appropriately ICT can help to strengthen the importance of education to an increasingly networked society, raising the quality of education by making learning and teaching active processes connected to real life. Students use technology to explore and reach an understanding of concepts and content.

Chigona, Chigona, Kayongo and Kausa, (2010) stated that schools in disadvantaged communities often face challenges of lack of resources as well as lack of qualified educators on ICT. The potential of ICTs can only be realized by schools when the technology has been properly adopted and integrated in the pedagogical processes of the school. Integration of technology in pedagogical processes goes beyond mere adoption. Adoption of ICT in by teachers describes the process from the time the technology is acquired to when it is utilized in teaching. Integration, on the other hand, is the implicit blending of technological components, parts or elements into a complex but harmonious whole, as well as how ICT is seamlessly embedded into the classroom. Many different types of technology can be used to support and enhance learning.

Everything from video content and digital moviemaking to laptop computing and handled technologies has been used in classrooms. Word processing and e-mail promote communication skills; database and spreadsheet programmes promote organizational skills; and modeling software

promotes the understanding of science and mathematics concepts (Adeyinka, Adedeji, Majekodunmi, Lawrence & Ayodele, 2007)

Factors influencing teachers' adoption and integration of ICT into teaching

Cha, Park, and Seo (2020) argued that professional development programmes for teachers should be designed based on the planned teaching methods and learning activities. In developing countries the most serious problems with ICT integration is that teachers are not capable of applying such technology and have little experience in using ICT in the most effective and efficient way. Dludlu and Mndzebele (2018) found that Agriculture teachers in Swaziland possessed a positive attitude towards the use of ICT in enhancing the teaching and learning process and thus attitudes is perceived as positively correlated with readiness to put into practice.

Andoh (2019) concluded that technology is perceived as a vital force for contemporary education and that teachers' use of ICT in Ghana was still confined to basic and traditional activities such as search for information and class presentation. Andoh (2012) reported findings that access to ICT infrastructure and resources in schools is a necessary condition to the integration of ICT in education. Effective adoption and integration of ICT into teaching in schools depends mainly on availability and accessibility of ICT resources such as hardware and software. Ang'ondi (2013) conducted a qualitative study on teachers' attitudes and perceptions on the use of ICT in teaching and learning in Kenya. Findings were confined to five themes: ICT infrastructure, knowledge and skills, attitudes and beliefs and the curriculum. Ang'ondi reported that most teachers noted that the ICT resources were not adequate. This was the reason why most of them did not have a chance to use the ICT room.

Bector (2003) argued that though infrastructure support is imperative, school technology leadership is a strong predictor of teachers' use of computer technology in teaching. A leader who implements technology plans and also shares a common vision with the teachers stimulate them to use technology in their lessons. Bector, further identified five factors that were essential to be present in schools if ICT was to be utilized properly: (1) ICT resources, (2) ICT teaching, (3) ICT leadership, (4) general teaching, and (5) general school leadership. Yilmaz (2011) assessed technology integration process in Turkey education system reported that in providing schools with hardware and Internet connections, it is also crucial to provide schools with technical support with regard to repair and maintenance for the continued use of ICT in schools. Yilmaz further argued that ICT support in schools influence teachers to apply ICT in classrooms without wasting time troubleshooting hardware and software problems.

Muhammed (2010) reported that challenges facing implementation of ICT integration in agricultural education in Nigeria were: inadequate funding, lack of motivation, poor staff development, and inadequate trained ICT compliant teachers. ICT can be a powerful catalyst in improving teaching and learning for all and that they should play part in broadening access to ICT and engaging by empowering learners and teachers to see technology in creative and innovative ways. Chigona, Chigona, kayongo and Kausa, (2010) argued that even though schools and educators appreciate the benefits of ICTs in their teaching and even though they are willing to adopt the technology, there are a number of factors that impede the integration of ICT in teaching and learning. Educators' knowledge and willingness to adopt ICT is often associated with sociological factors such as age and teaching experience using ICT. The infrastructure required for the use of

ICTs in teaching includes physical space, electricity, and Internet connectivity. Staff members feel constraint by a lack of institutional support and vision and many feel unsure of the direction they should take and the purpose that the use of ICT is meant to serve.

Eickelmann (2011) identified supportive and hindering factors to a sustainable implementation of ICT in schools as the way how principals perform as school leaders and how ICT use meets the pedagogical aims of the schools. Such schools closely linked ICT use to existing and prospective pedagogical aims and disseminate ICT into teaching and learning by integrating technology into compulsory school programmes and curricula. Wang and Woo (2007) suggested the following for rationalizing the use of technology: 1) high motivation; 2) unique instructional capabilities such as helping students visualize data/ problems or tracking learning progress; 3) support for innovative instructional approaches such as collaborative learning and problem-based learning; and increased teacher productivity and student knowledge construction.

The overall and overarching goals of ICT in education include: promotion of access to the use of ICT to all citizens of the country, students and teachers at all levels and forms of education. This includes access to information, use of information for informed decision and policy making, sharing of information through a number of media, print, radio, TV use of ICT for guidance and counseling, inclusive education, networking, research and capacity building (Ntshangase, 2010).

Al-Zaidiyeen, Mei and Fook (2010) investigated the level of ICT use for educational purposes by teachers in Jordanian rural secondary schools. The study also studied attitudes of teachers towards ICTs. A survey questionnaire was used to collect quantitative data. Findings reported low levels of ICT use for educational purposes, teachers hold positive attitudes towards the use of ICT and a significant positive correlation between teachers' level of ICT use and their attitudes towards ICT was found. According to Al-Zaidiyeen, Mei, and Fook, (2010) the findings suggested that ICT use for educational purposes should be given greater consideration than it currently receives.

Tedla (2012) concluded that teachers' characteristics play a greater role on the use of ICT. Teacher characteristics refer to the educational level, teaching and computer experiences, age, gender, and financial position. Teachers with fewer years of teaching experiences use computers more frequent than longer teaching experience. Older teachers are technophobic towards the use of computers and some teachers because of their belief system consider the use of computer as sin. ICT related training programmes develop teachers' competences in the use of technology to support classroom teaching and influence teacher's attitudes towards computers. Mndzebele, Dlodlu, and Mndzebele (2017) further recommend that continued professional development be strengthened and Internet connectivity deserves special attention and up-liftment for uptake of ICT integration in Swaziland.

ICT policy in Swaziland

Ntshangase (2010) recognized that ICT provides a great deal of advantage in enhancing human capacity, energizing the teaching / learning environment, delivery of equitable education and encourages an environment that supports creativity and critical thinking. Dlamini (2012) argued that it is therefore imperative that we expose our children, parents and teachers to ICT in order to develop individuals capable of functioning in a technologically driven, knowledge-based economy. The quest for improvement of education quality is one of the critical issues facing the country. The

primary determinants of education quality are teacher qualifications, teaching strategy, availability of teaching and learning materials and school facilities.

Mingaine (2013) identifies challenges faced by teachers in ICT integration in teaching as follows: inadequate and poor training, inadequate ICT tools in schools, lack of technical support, limited and unreliable supply of electricity, limited access to Internet and negative attitude towards computers. Similar findings by Alabi (2016) presents lack of access to appropriate ICT equipment, lack of time for training, exploration and preparation, negative attitude towards ICT in education, lack of infrastructure such as irregular electricity, ICT fear and anxiety, lack of ICT technical, administrative and instructional support and finally obsolete software and hardware as constraints faced by agricultural science and extension teachers in adopting ICT in Nigeria.

In the context of Swaziland, Mndzebele (2013) identifies external and internal barriers of ICT integration in teaching and learning as lack of knowledge and skills, lack of time, lack of equipment, insufficient funds, low internet connectivity and low maintenances and upgrading of computing equipment in schools. Successful identification of the determinants of ICT integration in teaching agriculture at secondary schools in Swaziland would overcome the above challenges and thus, enhance the learning process.

Singh and Chan (2014) identify the following as obstacles to ICT integration by teachers: (1) lack of technical support, (2) lack of time in school, (3) limited knowledge on how to make full use of ICT, (4) limited understanding on how to integrate ICT into teaching, (5) lack of software or websites that support teaching and learning, and (6) lack of computers or tools in schools.

METHODOLOGY

A quantitative approach was used in the study with a survey design. The target population for the study was all the secondary school agriculture teachers (N=314). In the survey only N=284 responded by filling and returning the usable questionnaires. The study was therefore a census as all the teachers were included. A survey questionnaire was developed and a Cronbach's alpha internal consistency reliability coefficient was found to be $r = .80$. Data were collected by hand delivering the questionnaires to the respondents and collected them on a set date. Descriptive statistics were used to analyse data included frequencies and percentages. Statistical Package for Social Sciences version 20.0 was used as a tool for data analysis.

OBJECTIVES

The purpose of the study was to describe the E-readiness of Agriculture teachers to integrate ICT in their teaching and learning. The specific objectives were to (1) describe the E-readiness of Agriculture teachers to integrate ICT in their teaching and learning, (2) identify the support activities given to teachers towards ICT integration available in schools, and (3) to describe the teachers' educational level and courses related to ICT integration in teaching.

STATEMENT OF THE PROBLEM

For many years Teachers in Eswatini are familiar with the face to face approach in their teaching and learning. During the first term of school opening the outbreak of Covid 19 pandemic lead to abrupt closure of all schools and higher institutions in Eswatini in the year 2020. This has posed a new challenge altogether in the approaches to teaching and learning. It is therefore for this reason

that a research of this nature was conducted to establish the readiness of Agriculture teachers to integrate ICT in their teaching and what support structures were available in schools to support ICT integration to enhance teaching and learning.

This research was necessitated by the inevitable need for the use of blended learning approach even if schools would open to ensure continuity in the face of uncertainty. The readiness of teachers to integrate ICT in their teaching would help them continue with classes even if schools would be closed in future due to unforeseen circumstances. It was therefore for this reason that a snapshot of a survey was conducted to ascertain the readiness of teachers to integrate ICT in their teaching and learning approach for sustainable education.

FINDINGS

Demographic Characteristics of Respondents

Table1 below indicates that the majority of Agriculture Teachers were males constituting 67% while females were 33%. The biggest group of Agriculture Teachers had less than ten years in their teaching experience constituting 54%. The average years of teaching experience of Agriculture teachers was found to be 11 years with a standard deviation of 8.5. The study also revealed that the average age of the Agriculture teachers was 36 years and the standard deviation was determined to be 8.4. This implied that the majority of Agriculture teachers were relatively young in secondary schools, thus the use of ICT as an instructional strategy has a future in schools.

Table 1: Profile of the surveyed teachers (N=284)

Variable	Description	frequencies	%
Gender	Male	94	33%
	Female	190	67%
Total		284	100%
Age	20 – 29 years	68	24%
	30 – 39 years	127	45%
	40 – 49 years	68	24%
	50 – 59 years	20	7%
Total		283	100 %
Teaching Experience	1 – 9 years	153	54%
	10 – 19 years	87	31%
	20 – 29 years	35	12%
	30 – 39 years	9	3%
Total		284	100%

Teachers' usage of computers for teaching purposes

As shown in Table 2 below about Two hundred and sixteen (76%) agriculture teachers responded that they owned either a PC or a laptop while sixty six (23%) of the respondents do not own either of the two. About Two hundred and forty one (85%) agriculture teachers do not share digital subject content with learners while forty two (15%) do share digital subject content with learners to access using computers. Five (2%) of agriculture teachers frequently shared digital subject content with the learners while thirty eight (13%) seldom share digital subject content with learners using computers. About One hundred and sixty four (58%) of agriculture teachers perceived themselves

as not digitally proficient in using ICT tools in teaching while one hundred and nineteen (42%) perceived themselves as proficient in using ICT tools in teaching.

Table 2: Teachers computer usage that promote ICT integration in their teaching (N=284)

Variable	Description	frequencies	%
Possession of a personal computer or a laptop	No	66	23%
	Yes	216	76%
Total		282	99%
Sharing digital subject content with learners such as notes	No	241	85%
	Yes	42	15%
Total		283	99%
The frequency of sharing digital contents for the learners	Always	5	2%
	Sometimes	38	13%
Total		43	15%
Digitally proficient in using ICT tools in teaching	No	164	58%
	Yes	119	42%
Total		283	99%

Availability of school based support to teachers towards ICT integration in teaching

About 71% of the Agriculture teachers had free access to computers in their schools and 50.4% of these teachers had Internet connectivity in their schools. Two hundred and seventy agriculture teachers (95%) responded that their schools had ICT laboratory while thirteen (5%) were in schools that had no computer laboratory. Majority of the Agriculture teachers (83%) voluntarily used ICT and 68% admitted that ICT was taught as an examinable subject in their schools. One hundred and ninety four (68%) respondents indicated that IT was taught as an examinable subject in their schools while eighty nine (31%) indicated that in their schools IT was not examinable.

Table 3: Support given to teachers towards ICT integration in teaching and learning (N=284)

Variable	Description	frequencies	%
Free access to computers in your school	No	83	29%
	Yes	201	71%
Total		284	100%
Internet connectivity in the school	No	143	50.4%
	Yes	141	49.6%
Total		284	100%
Availability of a computer laboratory in the school	No	13	5%
	Yes	270	95%
Total		283	100%
The use of ICT tools in the school is	Voluntary	237	83%
	Compulsory	47	17%
Total		284	100%
IT/ICT taught as an examinable subject in the school	No	89	31%
	Yes	194	68%
Total		283	99%

Educational level and courses related to ICT integration in teaching

Table 4 shows findings that two hundred and twenty seven (227) teachers possessed first degree in agricultural education (80%) while 4% (n= 12) had master's degrees in study areas which were not specified. It was found that in the secondary schools about 11% of Agriculture Teachers were holders of Bachelor of Science in Agronomy. Two hundred and fifty (88%) agriculture teachers in the schools have had computer training at some time while thirty two (11%) denied ever taken a course in computer use. One hundred and sixty five (58%) of agriculture teachers had taken a course on introduction to computers while ninety eight (35%) respondents had taken both courses on computer application and introduction to computers. Three (1%) agriculture teachers had taken a course on instructional technology.

Table 4: Educational level and courses related to ICT integration in teaching (N=284)

Variable	Description	frequencies	%
Highest level of Education	BSc in Agricultural Education	227	80%
	MSc in Agricultural Education	15	5%
	BSc in Agronomy, Economics	30	11%
	MSc in Another area Education	12	4%
Total		284	100%
Computer training	No	32	11%
	Yes	250	88%
Total		282	99%
Courses taken at any level of study	Introduction to computers	165	58%
	Computer application	10	4%
	Both Introduction & Application	98	35%
	Instructional Technology	5	1.7%
Total		278	99%

DISCUSSION OF FINDINGS

Objective 1

The readiness of Agriculture teachers to integrate ICT in their teaching and learning. Findings of the study indicated that the majority of Agriculture teachers in schools possessed their own computers or laptops. Findings further revealed that 85% of the teachers do not share digital subject matter content with the learners such as notes. This was an indication that teachers are in a position to integrate ICT in their teaching. The study showed that slightly more than half of the Agriculture teachers perceive themselves as digitally proficient users of ICT in teaching. In line with the findings Oasem and Viswanathappa (2016) concluded that teachers must develop not only computer skills but also proficiency in using a variety of technology tools to solve problems, make informed decisions, and generate new knowledge related to their professional performance.

The personal investment of teachers to acquire personal laptops is an indication that teachers possess the basic ICT skills and are prepared to take their teaching to the next level as the situation on the ground demands so. According to SAIDE (2010) e-readiness of teachers to integrate ICT in their teaching is measured by the teachers ICT integration competency where the teacher exploits the strengths of ICT to become more efficient and effective as a teacher. In support of the findings

Mndzebele, Dludlu and Mndebele (2018) found that digital proficiency in using ICT and sharing of digital subject contents with learners and owning a personal laptop were major determinants of ICT integration by teachers in their practice. Based on the findings that teachers have their own laptops, and perceive themselves as digitally proficient in the use of ICT, the Agriculture teachers are relatively ready to integrate ICT in their teaching beyond the Covid 19 pandemic.

Objective 2

The support given to teachers towards ICT integration available in schools. Findings of the study revealed that (1) teachers have free access to computers in the schools, (2) half of the secondary schools had internet connectivity while half have no internet connectivity, (3) almost all the secondary schools have computer laboratories, (4) using computers in the schools was voluntary, and (5) the majority of secondary schools ICT was offered as an examinable subject. In support of the findings Alabi (2016) and Sigh and Chan (2014) found that lack of access to appropriate ICT equipment, lack of time for training, lack of infrastructure such as electricity, obsolete software and hardware were constraints faced by teachers in adopting ICT in Nigeria.

Mingaine (2013) cited the limited and unreliable supply of electricity, limited access to internet and negative attitude towards computers were some of the barriers to ICT integration by teachers. The findings of the study indicate that the current practices in secondary schools have a bearing support to ICT integration by teachers in the teaching and learning process. Al-Zaidiyeen, Mei, and Fook (2010) suggested that ICT use for educational purposes should be given greater consideration than it currently receives. Offering ICT as an examinable subject in the schools is supported by Govender and Dhurup (2014) who reported that computer technology has a positive influence on teaching and learning processes and that with the use of computers in the classroom, schools would become more learner centred and that more individualised learning would take place than ever before. The use of computers leads to learners being able to collaborate, to use critical thinking and find alternative solutions to problems.

When used appropriately ICT can help to strengthen the importance of education to an increasingly networked society, raising the quality of education by making learning and teaching active processes connected to real life. Students use technology to explore and reach an understanding of concepts and content. Yilmaz (2012) further argued that ICT support in schools influence teachers to apply ICT in classrooms without wasting time troubleshooting hardware and software problems.

Objective 3

Teachers educational level and courses related to ICT integration in teaching. Findings revealed that (1) the majority of Agriculture teachers were holders of Bachelors of Science degree in Agricultural Education, (2) more than half (88%) of the teachers agreed that they had done computer training during their pre-service teacher preparatory training, (3) 58% of the teachers had done Introduction to computers and some with computer application while very few had done instructional technology course. In support of the findings Eickelmann (2011) identified one supportive factor for sustainable implementation of ICT in schools include how ICT use meets the pedagogical aims of the school and that such schools closely link ICT use to existing and prospective pedagogical aims and disseminate ICT into teaching and learning by integrating technology into compulsory school programmes and curricular.

Cha, Park, and Seo (2020) further argued that professional development programmes for teachers should be designed based on the planned teaching methods and learning activities. Dlamini (2012) further argued that it is imperative that we expose children, and teachers to ICT in order to develop individuals capable of functioning in a technologically driven, knowledge-based economy. The quest for improvement of education quality is one of the critical issues facing the country. The primary determinants of education quality are teacher qualifications, teaching strategy, availability of teaching and learning materials and school facilities.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Findings of the study revealed that teachers have personal laptops, and perceive themselves as digitally proficient in using ICT devices thus are ready to integrate ICT in their teaching and learning. Findings further indicated that there is internet connectivity in about 50.4% of secondary schools in Eswatini. Secondary schools are also offering IT as an examinable course thus learners are constantly equipped with basic ICT skills to support their own learning. Based on the findings, conclusion reached was that Agriculture teachers were in a way ready to integrate ICT in their teaching and learning beyond the Covid 19 pandemic. Teachers have invested in acquiring personal lap tops, and are contently using ICT devices for personal use. Free access to computers in schools promote the acquisition of relevant knowledge and skills. It is recommended that a specific course on instructional technology be provided in teacher training institutions to adequately equip teachers of the 21st century to integrate ICT in the teaching and learning process to benefit learners.

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