

# PERCEPTIONS OF EDUCATORS ON ICT INTEGRATION INTO THE TEACHING AND LEARNING OF ECONOMICS

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## Abstract

This study explored educators' perceptions of the integration of Information and Communication Technology (ICT) into the teaching and learning of Economics. Guided by an interpretive paradigm this qualitative study used a case study design. The purposively selected sample comprised eight Economics teachers, selected from four public Secondary Schools, located in KwaZulu Natal (Umlazi district). Data were collected using three instruments (semi-structured interviews, observations, and document review). From the findings, it emerged that teachers had the positive perception that ICT integration positively affects the teaching and learning of Economics and it promotes the teaching of Economics. However, the findings also showed that teachers face challenges in integrating ICT when teaching Economics. Contrariwise, the findings further revealed that some teachers, due to the lack of ICT skills, perceive ICT integration as a waste of time and thus, they remain attached to the traditional teaching methods, which hinder the use of ICT in teaching Economics. Based on the findings, the study recommends that teachers should be workshopped to enhance their ICT skills, there should be school-based ICT specialists to promote ICT integration in teaching, and also the education system should make ICT subjects compulsory from grade R- to grade 12, so that both teachers and learners get used to ICT gadgets.

**Keywords:** perceptions, integration, economics, information and communication technology

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## 1. Introduction

Like many other countries, in South Africa, there has been a cry that new innovative teaching tools must be introduced and implemented for effective teaching and learning. Information and Communication Technology (ICT) integration in education is among many initiatives. The belief, vested in ICT integration, labelled ICT as the main mechanism that could be used to transform education, especially the teaching of Economics. From the aforementioned, ICT is thought to transmute the culture of teaching and learning in Economics. [1] maintains that with the emergent new technologies, the teaching profession could advance from an emphasis on teacher-oriented to learner-oriented teaching and learning environments. [2] concur that integrating ICT in the teaching of Economics has yielded positive outcomes. Thus, ICT remains a fundamental tool in attaining various education objectives and increasing the number of people accessing information in education. As such, this improves the quality of teaching and learning within formal and informal settings and enables lifelong learning. Besides, empowering learners, [3, 4] declare that ICT has improved teacher pedagogics in the teaching profession. Without a doubt, if teachers as the agents of change in the teaching profession have improved teaching pedagogy, learners will also improve academically. [5] agree that integrating ICT in schools ought to achieve the desired educational and pedagogical outcomes that are valuable for both teachers and learners.

[6] report that in general teachers perceive ICT as a valuable tool for teaching every subject, especially the effective teaching of Economics. For [5], ICT integration builds learners to become critical thinkers. Therefore, while teachers try to incorporate ICT in their teaching, they should ensure that their lessons are goal-directed and towards the attainable outcomes or objectives, mentioned in the Curriculum and Assessment Policy Statement (CAPS). For example, Economics aims

at equipping learners with the basic principles necessary for living and higher education, preparing and inspiring learners to be discreet in managing scarce resources, while enabling them to attain knowledge for solving the real-life Economic problems of the public [7]. This labels Economics as one of the important subjects at a high school level. Corroborating this view, [6] maintains that Economics has been deemed an important subject worldwide. Hence, the necessity for Economics as a “foci teaching and learning subject” [6, 8] at the school level shows that it is essential for learners to acquire relevant skills, needed when learners are exiting the school system or opportunity to further their studies.

Furthermore, ICT is essential to help the learners develop sufficient skills and abilities in the application of these new technologies to help them in life. [9] purport that ICT integration in economics allows teachers to use a range of resources, and thus, that makes the teaching and learning process to be more amusing, exciting, and fascinating for learners. [6] point out that this results in effective teaching and learning whereby both teacher and learner are exposed to different learning opportunities and assist in finding different approaches to learning.

On the other hand, the practicality of utilising ICT in schools remains a challenge. [5] confirm that ICT is certainly not properly assimilated into the curriculum of day-to-day teaching, particularly in schools. In most African public schools there are no facilities, infrastructure or equipment to facilitate the teaching in general and for this study in the teaching of Economics. However, teachers mainly rely on their cell phones to gain access to the internet for information. And they make photocopies (hand-outs for learners). In some cases, learners are asked to copy and bring back the copies for other learners to copy as well. Regardless, ICT remains imperative as a means of assisting learners in dealing with their challenges or problems in understanding the Economics concepts taught. Far more, to move from the traditional boring teaching methods to new innovative and interesting ways of teaching and learning that will keep learners involved/absorbed in the learning process.

Nevertheless, other studies revealed that the use of ICT in schools heightens the quality of teaching and learning interactions in the classroom [3, 6]. According to [8], the rise of ICT components, such as computers, the internet, and cell phones, for example, can assist in meeting Economics education objectives and goals. From the above-mentioned [10] declare that teachers agree on the fact that they have to improve their teaching pedagogies by using ICT facilities to improve their teaching skills in economics. Notably, [11] and [12] revealed that there is little research on whether integrating ICT in teaching economics solves the problem in teaching and learning economics. Similarly, [10] confirm that the impact of ICT use on learners’ achievement remains difficult to measure. [3] sustains that even in well-resourced schools, ICTs integration remains a challenge in the teaching and learning process.

To close the existing gap, the study investigates educators’ perceptions of ICT integration, how it affects the teaching and learning of Economics, how ICT integration promotes the teaching of Economics, and find out what challenges teachers face in integrating ICT into the teaching of Economics in schools. However, the study majorly:

- explores educator’s perceptions on how ICT integration affects the teaching and learning of Economics
- finds out how ICT integration can promote the teaching of Economics and,
- looks at the challenges teachers face in integrating ICT into the teaching of Economics.

### **1. 1. Theoretical underpinnings**

The theoretical framework underpinning the study is the operant conditioning theory by [13]. Skinner’s operant conditioning theory itemised that learning is a change in behaviour resulting in how an individual responds to ‘events’ (stimuli) that take place in the environment. [13, 14] sustain that controlling the learning environment (i.e. media centre or computer laboratory) with relevant reinforcing stimuli (for this study ICT) strengthens the desired behaviour (i. e. improved learner’s academic performance in Economics). That is championing ICT integration in the teaching of Economics, Skinner’s theory calls for Skinnerian Economics teachers who will be able to use the theory to achieve success in the teaching of Economic education in schools. [6] maintain

that learning is a process that occurs by doing, seeing, observing, reading, and listening. More so, in the fourth industrial revolution, learners mostly learned better when visualising and actively participating in the lesson than in the chalk and talk method of teaching. And thus, at the heart of Skinners' theory is the fact that the control of the learning environment with reinforcing stimuli strengthens behaviour. As such, when teachers integrate ICT when planning their economics lessons, they can be able to keep learners interested and absorbed in the lesson and will be able to achieve the desired outcomes as stated in the lesson plan and the policy document [CAPS].

In this study, the theory suggests that integrating ICT in teaching Economics should be exhilarated. And teachers should be the facilitators and guide learners to discover things for themselves. In so doing, learners will become more passionate about their learning and will be conditioned to treat themselves as important beings in their learning. Resultantly, they will get used to the up-to-date ICT technologies, which will enhance their performance in Economics. Moreover, the implication of this theory to this study is that the study deals with the use of ICT for teaching Economics to encourage both teachers and learners in schools. Resultantly, ICT remains a tool the teacher uses within the learning environment to maximise learners' understanding and towards improved achievement. Likewise, ICT integration in Economics enables teachers and learners to be exposed to different learning opportunities.

## **1. 2. Literature review**

This section gives an overview in line with research questions, posed by this paper on ICT integration in the teaching of Economics in secondary schools.

### **1. 2. 1. Educator's perceptions of integrating ICT into the teaching of Economics**

According to [15], integrating ICTs into the curriculum should be taken as a priority and as an important strategy for learning in this technological world. In this fourth industrial revolution era, ICTs are necessary for most activities and can be regarded as a way of life. [16] purport that ICT is a 'productivity tool' that teachers use to teach economics. Therefore, re-evaluating the curriculum should be aimed at improving both teachers' and learners' ICT skills and knowledge for the imminent industrial and commercial wellbeing of a country as a whole [17]. For [6], teachers hold a view that ICT is paramount in improving the quality of education, enhancing learning, and supporting lifelong learning. [16] mention that teachers agree that integrating ICT (i.e. electronics, media and the internet, among others) in teaching economics has simplified their teaching responsibility. The words of [3] concur that the use of ICT technologies in the education system has abetted in simplifying the teaching and learning of economics in schools. As such, this promotes momentum, stability, and synergy in Economics and teacher pedagogy.

Millennials are exposed and inclined to technology, and daily learners have digital technology at home, and they are socially aware, which means that they are in touch with and cautious about what is happening around them [18]. In the words of [19] learners prefer ICT technologies as they are fascinated by them. Corroborating this view is [16], who state that learners have a poor attention span and are "experiential or visual kinaesthetic" in learning. This means the study of body motion and the perception of one's body motions. Therefore, in this study, for example, projecting the lesson on any Economics lesson or using computerised cartoons will help learners understand better the concept being taught. Furthermore, in case of an activity, given after the lesson, learners can immediately get feedback promptly because of the use of some computer programs. [20] confirms this view, who sustains that economics learners desire to see results or get feedback immediately after the activity. To that end, the reviewed literature proved that integrating ICT in teaching Economics enhances learners' understanding. And in turn, ICT is deemed as fundamentally important in education because it assists learners in developing basic ICT skills, required in real-life, and far more, it assists in facilitating the effective transformation of learning.

### **1. 2. 3. ICT integration as a means to promote the teaching of Economics**

[11, 12, 21] declare that ICT assist learners in dealing with learning difficulties they encounter in schools (i.e. in Economics). These authors believed that integrating ICTs in teaching

Economics generally empowers both teachers and learners. It enhances the change and nurtures the improvement of the 21<sup>st</sup>- century skills, needed in this digital or technological world we live in. This belief places ICT as the main mechanism in converting teaching and learning processes from a teacher-dominated to a learner-dominated approach. According to [12], the increased learning accomplishments for learners, and the emergence of new opportunities for learners to develop their creativity, problem-solving capabilities, intellectual reasoning skills, and communication skills, for example, are embedded in this education transformation (ICT). Notably, from the above, ICT integration is viewed as a tool to promote Economics teaching and solve the problems teachers and/or learners encounter in teaching/learning economics.

[11] maintains that when Economics teachers explain or teach concepts using ICTs that assists in expediting effective cooperative work. And to that extent, teachers can give constructive feedback to the learners; inversely, they receive feedback from learners. [20] echoes that integrating ICT in Economics inspires learners' discussions and aids learners to visualise challenging concepts and processes. Similarly, [21] concurs that using ICT can improve learners' achievement when used suitably to supplement a teacher's existing pedagogic philosophies. [12] proved that most users (i. e. Economics learners) have the impression that using ICTs makes them more effective and can increase learner self-sufficiency. Therefore, this suggests that ICTs influence teachers and learners and that they contribute to learners' motivation for learning economics, and motivated learners can do wonders in terms of achievement.

Nonetheless, the literature further revealed that there is little research, conducted on whether integrating ICT promotes the teaching of Economics [11, 12]. In the same vein, [10] confirm that the effect of using ICT on learners' performance remains hard to measure. [21, 22] maintains that even in well-resourced schools integrating ICTs still is a problem. Therefore, this study attempt to explore how integrating ICT into Economics can promote the teaching of Economics.

#### **1. 2. 4. The challenges teachers face in integrating ICT into the teaching of Economics**

The attempt to integrate ICTs into teaching and learning is a challenging process, and as such teachers in schools inevitably encounter difficulties. [23] argue that globally, the use of ICT in teaching and learning is a policy prerogative that dictates its integration in the classroom. However, studies [8, 24] declared that integrating ICT remains a challenge in teaching Economics in secondary schools. Challenges teachers face in integrating ICT in teaching Economics in schools relate to "material and non-material challenges", according to [20]. For [23] the material (i.e. resources) includes the inadequate number of computers in a school, lack of Internet connectivity, and lack of computer software. These authors add that the non-material hindrances include inadequate ICT knowledge and skills by the teachers, teachers' disinclination to ICT technology, and time also remains a limiting factor to the use of ICT in teaching Economics.

From the aforementioned, [8] and [23] p. 272 point out that another challenge teachers experience in teaching economics is that educational authorities and technology activists "first think about technology and then investigate the educational applications of this technology later on". For example, in the Economics policy document (CAPS) [18], ICT integration is suggested with examples of technology to be used in teaching. Worryingly, the policy document does not explain how teachers may assimilate ICT into teaching and learning. In this instance, ICT integration remains a challenge, especially for teachers lacking ICT knowledge and skills. As a result, this compromises learners to a sense that they will not acquire the necessary skills and knowledge that should be developed in Economics learners. At that, the policy objectives i.e. "developing problem-solving skills through the use of resources, decision making, critical thinking using basic principles that underlie economic processes and practices" will not be met [6, 11].

The literature revealed challenges in integrating ICT in Economics teaching in schools [22]. Therefore, this calls for a turn-around strategy to address these challenges. [23] caution that South Africa's ICT integration program will remain a dream if these challenges are not dealt with on time. More so, all educational stakeholders need to take a closer look at what kind of assistance to offer, to fast-track ICT technologies implementation in schools.

The aim of the research was to explore educators' perceptions on how ICT integration affects the teaching and learning of Economics, to find out how ICT integration can promote the teaching of Economics, and to look at the challenges teachers face in integrating ICT into the teaching of Economics thereof.

## 2. Materials and Methods

Using a qualitative research approach, the researchers were able to harvest a robust understanding of the phenomenon of interest (i.e. ICT integration into the teaching of Economics in schools) [24] from the participants' responses. A case study research design was used, [25] to contextualise the phenomenon within definite confines, bound in education, and to explore educators' perceptions of how ICT integration affects the teaching and learning of Economics, find out how ICT integration can promote the teaching of Economics, and look at the challenges teachers face in integrating ICT into the teaching of Economics. And this allowed the researchers to get in-depth knowledge of a certain case within the real-life context of the study. Through the use of a case study design, the researchers were able to select research sites and participants with varying experiences in using ICT in teaching economics in secondary schools. Purposive sampling was used to select four public secondary schools, which offer Economics at the FET phase with the hope that they would provide distinctive data on integrating ICT in teaching Economics in schools.

The population for the study comprised two Economics teachers in each sampled school, and thus a sample was a sum of eight teachers. Data collection tools for the study were semi-structured interviews with Economics teachers, observation, and document reviews (i.e. lesson plans, notes, CAPS documents, and mark sheets). This was to ensure data trustworthiness and to triangulate the data collected. According to [26], triangulation means checking information, collected from different sources to define the uniformity of evidence, obtained from data sources. Ethical issues were taken into consideration, school principals were asked for permission to use teachers within their schools, and consent from teachers was asked for. And for data presentation, participants were ensured confidentiality and anonymity.

Thematic analysis was used to analyse data, as suggested by [27]. These authors maintain that data analysis includes: collecting data, organising data, transcribing data into segments, data coding, describing data, categorising and developing patterns, and writing a report. We followed the six steps in making sense of the data. For anonymity purposes, participating schools were code-named, for example, School A, B, C, and D. And teacher participants were designated T1, T2, T3, and T4.

## 3. Results and discussion

The study aimed to find out what are educators' perceptions of integrating ICT into the teaching and learning of Economics in schools. At that, the results and findings are discussed using the following emergent themes:

- ICT integration into the teaching of Economics
- ICT integration as a tool to enhance the teaching of Economics
- Teachers' challenges in integrating ICT into the teaching of Economics

### ***ICT integration into the teaching of Economics***

From question one, the Economics teachers were asked: "how can your perceptions of ICT integration affect the teaching and learning of Economics"? The findings showed that the majority of Economics teachers were confident that integrating ICT could positively affect the teaching and learning of Economics in schools. On the other hand, the findings revealed that although teachers were positive about ICT integration, at a glimpse, their attitudes and capabilities toward ICT hinder them from transforming and adapting. Therefore, they perceive ICT as a 'dream' and as a waste of time at some point. One participant stated:

*The integration of ICT positively affects the teaching and learning of economics. It brings about reality or more sense of understanding to the learners. As an Economics teacher, I know that using technology tools in a classroom is interesting. We all know that learners like to do things that pertain to technology, for example, they are always on their cell phones, TVs, and laptops so when*

*you are integrating ICT into teaching Economics it is quite interesting, and it draws the attention of learners. Also, ICT saves time because if you are teaching using technology, you are not writing as such, you just show the learners how to do something, whereby they see and do it on their own under the guidance of a teacher. (School A-T2)*

At school C Economics teacher who supported ICT integration into the teaching of Economics explained:

*I am of the idea of incorporating ICT into the teaching and learning of Economics. ICT makes things easier for both teachers and learners. For instance, if I want to summarise notes for learners, I use a computer/laptop to type, print, and make copies for my learners. And to enhance learners' understanding when teaching for example, "circular flow of income in the economy" I can google the diagram on the internet and project the lesson. Here, learners can envision and that will enhance their understanding. In that way, I am also saving time because I do not have to draw the diagrams on the board. Or maybe on another day, for example, I teach my learners for the first 15 minutes, and when I want to assess and check their understanding, I use computer programs like quizzes/ Kahoot [i.e. when I am teaching demand and supply graphs], I will look for a quiz relating to what we were doing, and learners will use on the computers, laptops, or smart cell phones, touchpads (ICT gadgets) to answer and get feedback the minute they finish. In this way, they are involved/ hands-on and focused other than relying on a teacher to spoon-feed them. Moreover, this will expose my learners to using ICT gadgets to improve their ICT skills. (School C-T2)*

These findings suggest that Economics teachers support ICT integration in teaching and learning Economics. And they acknowledge that their attitude matters in the way how their use of ICT can affect their teaching [in Economics]. These findings were corroborated by [6], who declared that teachers recognise ICT as an important tool for effective teaching in Economics. Similarly, [3] concur that the improved teacher pedagogics lies in the teachers' use of ICT when planning and delivering lessons. And thus perceive ICT as a necessity for all teachers. In this regard, [8] argue that when a teacher is motivated to use ICT in his/her teaching that increases learners' inspiration and improves their understanding, while encouraging learners to be active and lifelong learners. On the same thought, [5] agree that when Economics teachers integrate ICT into teaching, that strengthens their confidence, and in turn, it builds learners to become critical. This finding suggests that teachers have positive perceptions about ICT integration into the teaching and learning of Economics.

On the other hand, the findings revealed that one participant held a differing view regarding ICT integration in the teaching and learning of Economics in schools. One participant stated:

*I am aware of ICT and its use in the education system. However, because of the problems in terms of the state of the school budget, not every school has funds. For example, in our school, we have enrolled many learners. Therefore, it becomes a challenge even if you try to integrate ICT into teaching economics. Because, not all learners have ICT gadgets [i.e. computer, smartphone, or laptop], so if learners do not have computers on their hands, that means they will be sharing, and if they are sharing it is not guaranteed that they will grasp every information or the concept because as you proceed with the topic, the gadget will be held by the other learner in that way the information processing will be distorted and that will not serve the purpose. That is why I am saying ICT integration is a dream that I do not see it manifesting. (School B-T1)*

As the participants commented, they recognise the importance of ICT integration into the teaching and learning of Economics, but they have lost hope in its effectiveness in the teaching and learning of Economics. They held the view that theoretically integrating ICT into teaching is good, but we are still far from reaching that destination when it comes to reality. Emanating from this finding is that participants have lost confidence in using ICT in their teaching, distorting their perceptions of the ICT integration. Corroborating this finding, [5] argue that ICT is undoubtedly not suitably integrated into day-to-day teaching in schools. Views of [3] concur that integrating ICT even in full-resourced schools remains an experiment that still needs to be tested. To this end, [10] echo that the effect of ICT usage on learners' achievement is not measured, and thus teachers cannot be able to scale its efficiency. [11, 12] argue that minor research on integrating ICT in the teach-

ing of Economics has not shown if ICT resolves the problem in teaching and learning Economics. In that way, it shakes teachers' beliefs and attitudes toward ICT integration.

Data, obtained from observations, showed that teachers do integrate ICT in their teaching. Notably, they heavily rely on their cell phones to access information. For example, in School C –T1, the researchers observed a lesson on grade 11 Economics learners. The lesson was on 'analysing and investigating poverty' the teacher did not bring a computer or a laptop to the class. But it was evident from the hand-outs, given to the learners, that s/he did a google search to get photos of squatter camps or poverty-stricken areas [how do people in absolute poverty live] and those of people living in relative poverty areas. The teacher also had hand-outs for the statistics for household poverty in South Africa. From the observation, it emerged that the teacher had confidence in teaching the planned lesson and the worksheets and hand-outs, given to learners, kept learners thinking as they were asking questions. And they gave examples of areas in their surrounding areas and classified them as per their topic of the day. The lesson flew and learners were happy and interested. However, the data, obtained from documents [lesson plan], refute this finding, it demonstrated that the teacher will project the lesson where s/he will be explaining using other countries' state of absolute and relative poverty to draw their attention to how South Africans suffer because of poverty and also make comparisons of the state of poverty for different countries. Arguably, this could be blamed on the availability of resources. Supporting this finding are [5], who stated that mostly African [township] public schools lack infrastructure or equipment (i.e. ICT gadgets) to facilitate the teaching of Economics in schools. To this extent, it was good to discover that passionate Economics teachers improvised (using the little they have) for the lesson to be effective and successful.

The research findings showed that teachers positively believe that ICT integration can positively affect the teaching and learning of Economics. The findings from interviews and observations corroborate each other but partly refute those obtained from the documents review. The document review demonstrated what was not done during the actual lesson observed (see above). As such the argument can be made on the fact that the unavailability of infrastructure hinders teachers from integrating ICT in the teaching of Economics. However, it must also be applauded, that utilising little ICT resources teachers personally have affected positively the teaching and learning of Economics. Even though, the findings further revealed that some teachers do not believe in ICT integration because they lack resources as a result they refrain from trying as they continue to teach using their traditional ways of teaching and learning.

#### ***ICT integration as a tool to enhance the teaching of Economics***

In addressing the research question, two of the participants were asked: "how does the integration of ICT promote the teaching of Economics?" The findings revealed that all participants agreed that integrating ICT promotes the teaching and learning of Economics, despite the challenges noted. At School D –T2 commented:

*ICT integration promotes and simplifies the teaching and learning of economics. It is a teaching aid that makes teaching and learning easier for especially visual learners. They learn better if they can see things for themselves, in that way they understand and recall the information easily. Moreover, ICT also helps teachers, in cases whereby a teacher is not clear about a particular topic, s/he can Google the topic or watch a video on YouTube for that topic, in that way s/he can understand the concept and find simpler ways to teach and explain to the learners. When using ICT, you tend to teach an up-to-date curriculum, even if you make examples, you use things that appeal to learners' schemata as they live in the [now world]. So, they can relate other than being theoretical when you are using traditional teaching (i.e. book and chalkboard). Using ICT brings more meat and understanding and also the confidence to the learners as they can see things in a more realistic situation. For example, when teaching "dynamics of markets: price elasticity of demands, demands and supply relationship: substitutes and complements", there is a lot of graphs interpretation. Therefore, when using a laptop, it is easy to move points, and it becomes easier for learners to determine the value of goods, whether goods are in short or plentiful supply, whether or not the good is better than other goods etc., and also to see price fluctuations. Therefore, for both economics teachers and learners, when using ICT, it becomes easier to be analytic when analysing graphs. School D-T2)*

Another Economics teacher echoed:

*From another angle during COVID 19 era ICT was of great help. I created a WhatsApp group for the learners because it was hard to get and teach them at once. After all, learners were alternating. Our classes were divided into two groups, so I could only teach one group and maybe I will teach another group in a week. In that way, the content was fragmented as a result, when learners return to school always came blank because they stayed at home for about two days. After I introduced the WhatsApp group, I was able to take a question paper and upload it for the learners, so that they can interact with the questions and if they seek clarity I responded. When addressing problems for learners, I was addressing questions in a group, so that all learners could learn and at the same time, I could reach them and then it worked just fine because we were working under restricted COVID19 protocols. (T1- School A).*

From the above comments, it was clear, that ICT integration promotes the teaching and learning of Economics in schools. In this regard, [11] sustains that using ICT to explain or teach concepts advances learner understanding, thus promoting the teaching process. Substantiating this finding is [12], who declared that ICT is a viable tool to transform the teaching process. As such, the improved learning outcomes for learners and new learners' opportunities for problem-solving skills are increased. These findings were corroborated by the findings from the document review, on the mark sheet, there was an increase in learners' academic achievement. [6] and [12] concur that when ICT is appropriately used, it can advance learners' achievement. In addition, [12] pinpointed that ICT users agreed that using ICTs makes them effective and increases their self-sufficiency.

At that, it was clear that Economics teachers agree that integrating ICT promotes the teaching of Economics.

#### **Teachers' challenges in integrating ICT into the teaching of Economics**

The researchers further establish the participants' challenges in integrating ICT into the teaching of Economics. It emerged that the participants unanimously agreed that there are challenges that hinder the integration of ICT into teaching Economics. The prominent challenges were a lack of resources and infrastructure and teachers' capabilities of technological (ICT) skills. Moreover, some findings showed that learners use ICT gadgets to copy during tests and examinations, watch pornographic videos and use media platforms to insult one another. One participant explained:

*One of the biggest challenges teachers face is the lack of resources and infrastructure. In our schools, you will find that there are no ICT tools, even if computers are there, there is no internet/Wi-Fi to connect [...] or maybe the computers are outdated, and there is no new software. [...] in some of the cases, computers and laptops are there, but we are not allowed to use them I do not know why. (School A-T1)*

The participant School D added:

*... the level or capacity on how one can use ICT tools in teaching Economics remains a challenge. For instance, there are resources but teachers lack the know-how of using ICT (knowledge of how to integrate ICT) to make learners see/know the importance of ICT in learning. Some teachers, especially old teachers in the system, have a phobia when it comes to ICT. As such, their fears hinder the integration of ICT in teaching and make the teaching responsibility a hard one. (School D-T1)*

The above responses showed that the unavailability of resources impedes the integration of ICT into the teaching and learning of Economics. Furthermore, it emerged that in some schools, there are resources, but the lack of ICT skills among the teachers remains a challenge. Therefore, the question remains are teachers well equipped/trained/or rather workshopped when it comes to the use of ICT? To this end, the finding revealed that these manual teachers have a phobia when it comes to technology and thus desist from integrating ICT resultantly, their fears encumber the successful integration of technology. These findings support the views of [17] and [23], who postulate that ICT integration is still a challenge in teaching economics.

The findings showed that other challenges manifest because of the use or availability of ICT gadgets in schools. One participant stated that "some learners use cell phones to copy during the examination. In my schools, two to three learners are caught copying during the examination,



and that brings unnecessary irregularities and question the use of ICT in schools” (School B-T2). At School A-T2 maintained that “ at school more often we catch learners watching pornographic videos and watching nude pictures and also we have had cases whereby learners insult each other on social media [i.e. on Facebook] and that is the deformation of character”. Previously, we did not have such challenges, but because of the prevalence of ICT we normally deal with such; in short, it did more damage than good it added. These findings suggest that apart from the use of ICT in learning learners use it for selfish reasons, and that forfeits the main aim of ICT integration in teaching.

Emerging from the findings, teachers face challenges in integrating ICT in teaching Economics in schools, which relate to the material and non-material challenges. [23] state that the inadequacy of computers in a school, lack of Internet connectivity, and lack of computer software remain a challenge to ICT integration in Economics. And also, the teachers’ lack of ICT knowledge and skills challenges the effective use of ICT integration in teaching Economics.

It was striking to find, that learners use their cell phones to cheat and copy during the examination and that they watch porn videos on school premises. Let alone that one of insulting each other on Facebook. It saddens me because it can even lead to suicide or learners being imprisoned.

**Limitations of the study.** The findings of the present were limited within the Umlazi district not all the schools in the EThekweni region, in KwaZulu Natal (KZN). Thus the findings were only applicable to the selected schools in the Umlazi district and could not be generalised to other districts in Durban, KZN. The concerns also included the sample size – only a small number of Economics teachers (n=8) were sampled. Future research could make an effort to select a more diverse and representative sample of Economics teachers in the KZN. Furthermore, the study focused on Economics teachers, yet ICT is integrated into almost all FET subjects, therefore, future studies could extend the scope to include teachers teaching different subjects.

**Prospects for further research.** Based on the findings, the study recommends that for teachers who have negative attitudes toward ICT integration in teaching Economics, there should be workshops and training to up their ICT skills, so that they can improve their confidence in using ICT tools. Also, there should be school-based ICT specialists to assist teachers and to ensure that the learning environment is set or conducive to the effective use of ICT when teaching. Regarding ICT integration to promote the teaching of Economics, the study proposes that teachers and learners must be exposed to technology daily. For example, the education system should consider making ICT (computer subject) compulsory for all learners from grade R to grade 12 to keep up with this digital world and acquire ICT skills at an early age. Additionally, the school should ensure that there is a computer laboratory with full equipment and infrastructure (i.e. internet and Wi-Fi) to ensure that both teachers and learners have equal access to information to curb the challenges teachers face in teaching economics in schools.

#### 4. Conclusion

Teachers are positive that ICT integration positively affects the teaching of Economics in schools, as such, they perceive it as a tool for innovative/effective teaching and learning and also as a tool that can help students’ critical thinking. The findings revealed that teachers integrate ICT when planning their lessons, however, lack of resources remains a challenge, thus hindering the use of ICT, although it has been deemed as an important tool to lighten the teaching responsibility, while it nurtures learners’ ICT skills and creates the learning opportunities for the learners and help them to improve academically.

On the other hand, the findings revealed that some teachers lack ICT skills or have a phobia of embracing ICT in their teaching and thus cling to the traditional pedagogical teaching methodologies. The predominant situations in the sampled schools point to that there is still a lot to be done in African public schools concerning the ICT integration in teaching Economics. As such, the education department remains with the responsibility to evaluate or standardise ICT integration in all subjects and take a closer look at policies relating to how it detects and deals with the challenges Economics teachers face in schools countrywide.

The use ICTs during COVID 19 era validated the necessity of ICT integration as the findings showed that teachers mostly relied on it to teach. From the findings, it was clear, that the DBE took an initiative to provide schools with ICT tools, but the researcher's perception was that in some schools these ICT gadgets remain not used, yet teachers cry that they do not have ICT resources. At this juncture, this calls for DBE to deploy people, maybe quarterly, to assess the utility of ICTs and ensures that the computer lab is in existence to ensure the quality of teaching and learning and that the African child receives the preeminent education.

### Conflict of interest

The authors declare that there is no conflict of interest in relation to this paper, as well as the published research results, including the financial aspects of conducting the research, obtaining and using its results, as well as any non-financial personal relationships.

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