Ethical Provision of Online Learning in South African High Schools

Baldreck Chipangura[1]

[1]Department of Information Systems, University of South Africa, South Africa
Email: [1]chipab@unisa.ac.za

Abstract

Drawing from Kantianism, utilitarianism, information systems ethical models, and South Africa Department of Education policies, this study investigated how high schools can ethically provide online learning. The study was prompted by two unethical concerns highlighted in the literature: firstly, the potential discrimination to online learning against learners who do not have access to information technology resources, and secondly, the cyber risks faced by learners from prolonged exposure to Internet connected devices. To gather data for the study, interviews were conducted with 15 schoolteachers, who were conveniently sampled from five schools in Centurion, Pretoria city, South Africa. The data was thematically analysed, and the results of the study found constructs that inform ethical provision of online learning, which are: equal access to online learning, teacher competence, teacher empathy, and cyber security of learners. The findings of this study inform the policy on providing ethical online learning in South Africa and any other country.

Keywords: Cyber ethics, Online learning, Empathy, Cyber Security, Equal access, Digital responsibility

1. INTRODUCTION

Due to the widespread incorporation of computing technologies in learning, it is important to understand the digital responsibility of schools when providing online learning in developing countries. Responsible provision of online learning is related to ethics, which are principles that call for equal access, privacy, avoiding harm, intellectual property, and providing accurate information [1-3]. The increased online presence of students and teachers expose them to cyber vulnerabilities and misdemeanours [4]. The unethical use of digital devices by young people can be regrettable because they can create or consume bad content ignorantly or knowingly regardless of their age. Once inappropriate content is distributed on the Internet, it is difficult to delete, which can have a negative long-term effect on the character of a person [5]. Instances of unethical cyber behaviour have been reported among students, of which cyberbullying was prominent in countries such as the United States of America [6], Australia [7], and many other

countries, including South Africa [8]. In addition to cyberbullying, cyber fraud is a threat to online learning among students [9, 10]. Cyber fraud has been reported to have detrimental consequences, including identity theft, loss of money, or physical harassment [11]. Adedoyin and Soykan [12] found that some of the unethical cyber behaviour was not intentional, for example, when students appeared naked on camera during online classes during the COVID-19 period. Furthermore, students were found to plagiarise published documents due to ignorance or lack of training [13]. Plagiarism is a violation of intellectual property rights [1], which is not acceptable in academia.

Regarding teachers, Mfaume & Bilinga [14] found teachers guilty of using mobile devices in their practice of duty. The unethical use of devices included leakage of exams to students, social media use during class, receiving calls during class, sexting, and bullying. Against the online delinquent behaviour of teachers, schools are expected to uphold the ethical provision of online learning. In South Africa, several educational policies provide codes that enforce ethical behaviour in teaching, for example, the Department of Education (DoE) National Education Policy Act of 1996: Standards and Norms for educators [15] and the South African Council of Teachers Code of Ethics (SACE) [16].

Constitutionally, access to education is a human right in South Africa, regardless of whether it is online or not; therefore, schools are required to provide students with equal learning opportunities [15]. Evidence from the literature confirms that the right to education of some students was violated during the COVID-19 lockdown period [17, 18]. It was revealed that underprivileged students were unintentionally discriminated against in online learning because they did not have access to computers connected to the Internet (Gelles et al., 2020), and some students did not have broadband access [18]. Furthermore, in instances where online learning took place, students were overwhelmed with schoolwork and struggled to cope, of which teachers did not adequately support online learners [19]. This is against the teaching code of conduct that requires teachers to be empathic in class, especially when teaching remote learners [15, 16, 20]. Furthermore, there were instances where teachers were unable to provide online instructions because they lacked the technical proficiency to provide online teaching [21]. Proficiency in teaching is an ethical requirement that is stipulated in the South African Department of Education Policies [16, 22].

To overcome acts of unethical behaviour in online learning, several remedial actions have been suggested in the literature. Chipangura and Dtendjo-Ndjinda [4] suggested that schools should provide students with etiquette education on computers and conduct awareness campaigns on good ethical behaviour. Furthermore, unethical behaviour should be reported to school authorities when it occurs, regardless of whether teachers or students commit it [14]. Mfaume and

Bilinga [14] emphasised that schools should have policies that enforce ethical behaviour and should specify punishments for breaking the code.

Focusing on policy as a baseline for ethical conduct, studies conducted in South Africa revealed that the lack of cyber safety policies at schools was a concern in the adoption of online learning [23-25]. It is a concern because schools cannot effectively protect students from cyber-risks without enforcing policies/codes of conducts. Kritzinger [23] found that many South African schools are not cyber-safe compliant in terms of leadership, infrastructure, education, and inspection standards, which is a cyber security vulnerability. In another study, Van Solms and Van Solms [24] identified that policies in South African schools and other developing countries discouraged the integration of cyber security curricula, while learners were found ignorant of cyber risks. Furthermore, Kritzinger [26] found that South African schools were failing to protect learners from cyber threats due to lack of awareness and proposed a 10-phase cyber-safety maturity strategy in 2020 [23]. Primarily, parents were found not to be ready to teach their children the etiquette of online communication because they did not monitor their online activities and never discussed cyber risks with them [27]. From a different perspective, Azhana et al. [19] argued that policies alone will not change ethical behaviour and suggested that parents and teachers should play a greater role in enforcing ethical behaviour in schools. Congruently, Macaulay [28] found that even if students were knowledgeable about unethical online behaviour, their knowledge was irrelevant because teachers and parents were unable to provide support in times of adversity.

The reviewed studies revealed that the provision of ethical online learning in schools requires active participation of all stakeholders, which are learners, parents, and teachers. Although these stakeholders are equally important and may have different views of ethical online learning, this research investigated teachers' perceptions of how their schools implement ethical online learning and deductively inferred how schools can provide ethical online learning. The aim of the investigation translated into the following research question: How can schools provide ethical online teaching?

2. METHODS

The research process utilised in this study is illustrated in Figure 1 below. The initial stages involved formulating the problem statement and identifying gaps in existing literature, as detailed in Section 1. Section 2 outlines the theoretical framework employed and describes the data collection procedure. Following this, Section 3 provides the results and Section 4 delves into the discussion of results.
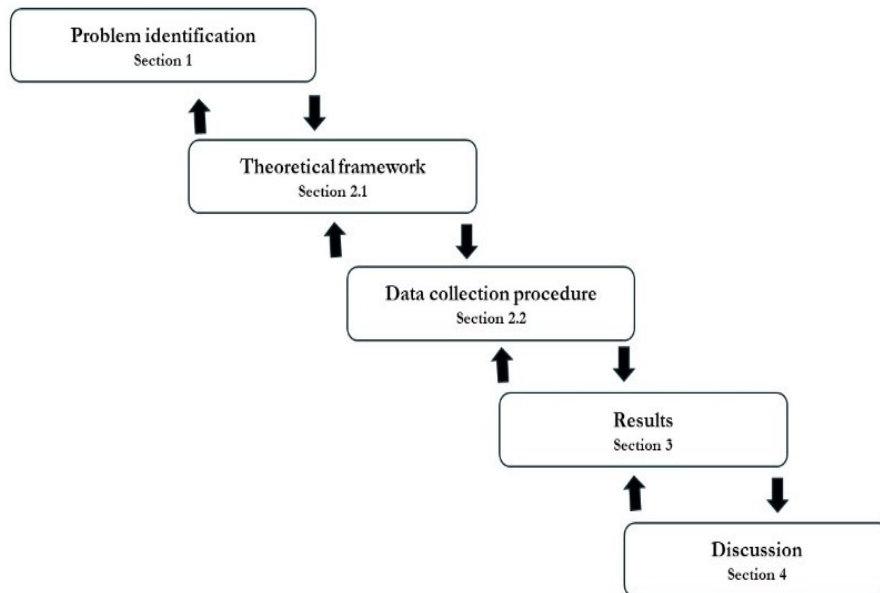
Figure 1. Research process of this study

2.1. Theoretical framework

Learning from Kant's work, ethics is the moral value of being able to distinguish between doing what is right and what is wrong [29]. The Kantianism theory posits that goodwill is the only intrinsically valuable thing that should be quantified when acting from duty [29, 30]. Goodwill is understood from two perspectives, acting in conformity with duty and acting from duty. Kant emphasises that goodwill is good regardless of effects and quantification. Acting from duty satisfies morality, whilst acting in conformity with duty is not. Duty is a set of constraints that guide actions concerning common law [31]. Kant argues that actions are considered right if they follow a categorical imperative, which means that people should do the right thing regardless of how they feel about it or the consequences [29]. Essentially, if the behaviour of one person is just and acceptable in a society, then that should be universal for that society.

Another branch of ethics is utilitarianism, which is attributed to the works of Bentham (1748-1832), Mill (1806-1873), and others. Utilitarianism has two approaches, which are ethics of act and rule [32]. Eggleston and Miller [33] differentiated act utilitarianism from rule utilitarianism. Act utilitarianism is where an action maximises the well-being of people if it is executed; otherwise, it would be wrong if the action was not executed. Moreover, in rule utilitarianism, an action is morally right if it is supported by an accepted rule of law and whose results are admissible in any system of rules.

Imperatives of Kantianism and utilitarianism were adopted in applied ethics models such as the Privacy, Accuracy, Property, and Accessibility (PAPA) Ethics model [1], the Autonomy, Community, Transparency, Identity, Value, and Empathy Ethics model [2], and the Association of Computing Machinery (ACM) Code of Ethics and Professional Conduct [3]. These imperatives are the pillars of ethics in some of the South African educational policies and codes of conduct, for example, the Professional Teaching Standards [16], the National Educational Policy Act of 1996 [15], and the White Paper on e-Education [22]. While the policies were formulated to address various aspects of teaching and learning, they converge on the issue of ethics. In summary, the following ethical principles are underlined in the policies: professional conduct and integrity, qualifications and competence, duty of care, equity, inclusiveness, avoiding harm, security of learners, and professional development. The principles are meant to ensure ethical learning environments in schools.

Drawing insights from Kantianism [29], utilitarianism [32, 33], information systems ethics models [1-3] and South African Department of Education policies [15, 16, 22], this study identified four ethical imperatives to investigate how schools can provide ethical online learning in South African schools: (1) avoid harm(/security); (2) do not discriminate (/equal access); (3) professional competence; and (4) practice empathy. These imperatives are the lens that underpins the investigation of how South African high schools can provide ethical online learning.

2.2. Data Collection Procedure

This study is grounded in interpretive philosophy, which posits that knowledge is most effectively conveyed by individuals who have experienced the phenomenon, emphasizing intersubjectivity [34]. The research employed interviews to explore the firsthand experiences of teachers in delivering online learning within high schools in South Africa.

A total of 15 teachers conveniently selected from 5 high schools in Centurion, a suburb in Pretoria city of South Africa, participated in the interviews. Schools were selected to participate in the study if they were geographically located in Centurion and providing online learning. From each school, the School Principal (Head of the School) recommended three teachers to participate in the interviews based on their knowledge of the school and their online teaching experience.

A total of 4 interview questions were asked to all teachers and are presented in Table 1. The interview questions were constructed from ethical imperatives discussed in literature [1-3, 16, 29].

The interviews took place over a two-month period, from October to November 2021, at the time when the COVID-19 lockdowns were lifted in South Africa. Appointments were made with teachers and the interviews were conducted at the respective schools. The average duration of an interview was 60 minutes, and the interviews were audio recorded.

Table 1: Interview Questions

ID	Imperative	Interview Question
1	Equal access	When providing resources for online learning, how do you ensure that all learners have equal access?
2	Security	Can you tell me, how do you protect your learners from cyber security risks?
3	Teacher competence	How does your school support the development of skills that allow teachers to provide online learning?
4	Practice empathy	Which online student support mechanisms are implemented at your school to ensure that learning outcomes are achieved?

The audio recordings were transcribed verbatim and thematically analysed through six stages[35]. The stages were familiarisation, generating initial codes, generating themes, reviewing themes, naming themes, and producing the report. This study adopted deductive analysis [35], which means that theoretical themes from the literature informed the coding and naming of themes. Data analysis was conducted with the help of an assistant researcher through three cycles. Debriefing meetings were held at the end of each cycle to agree on the codes and themes.

The study followed research ethics principles and was approved by the ethics committee of the university where the researchers are affiliated. Participation in the interviews was voluntary and participants had the right to withdraw from the interviews at any time. The participants consented to the recording of the interviews and no money or gifts were paid as compensation.

For reporting of the results, the names of the schools and the participants were anonymised to conceal identities. The five schools were alphabetically labelled A, B, C, D, and E. Since each school had 3 participants, the teachers were identified with the name of the school and a number. For example, the teachers at school A were Teacher A1, Teacher A2 and Teacher A3.

3. RESULTS

This section presents the results of the study. The results are categorised into four main themes: (3.1) equal access to online learning, (3.2) cyber security of online learners, (3.3) teacher competence, and (3.4) teacher empathy.

3.1. Equal Access to Online Learning

Two approaches for providing equal access to online learning resources were identified: firstly, providing access through school computer centres, and secondly, Bring Your Device (BYOD). School computer centres provided students and teachers with access to computer hardware, the Internet, and online learning applications at the five schools. The following are the perceptions of the teachers.

Teacher A1 said:
> The school follows the Accelerated Christian Education (ACE) curriculum, which gave us access to online learning resources. Teachers can access teaching resources at anytime, anywhere. [...] Learners can access the ACE website from home, and they can do assignments and submit online.

Teacher C7 said:
> [...] Before COVID 19, we were already providing online teaching, but the school has since upgraded the computer centre infrastructure to improve online teaching. During COVID 19, we had no option but to be 100% online. The computer centre provides both teachers and learners with access to teaching resources.

Teacher D4 said:
> At this school, we promote online learning, that is, e-learning or m-learning, in many ways; for example, we use Kahoot LMS to provide quiz assessments. We also provide learning resources that can be accessed when students are home after school.

Teachers at all the schools perceived their students as privileged and their parents as affording to provide their children with BYODs. To enforce the uniformity of BYODs, students were recommended to buy prescribed devices. In this sense, Teacher A2 stressed that only tablet computers were allowed, and personal mobile phones were not allowed at the school. Teacher C4 revealed that uniformity ensured that privileged learners remained on the same level with other learners. One challenge observed with regards to BYOD was the monitoring issue, where teacher D10 disclosed that some parents did not allow their children to access mobile devices without being monitored. However, data analysis in this study

revealed that all schools monitored the usage of mobile devices during school hours. The following are the perceptions of the teachers.

Teacher C4 said:

> […] The greatest challenge was for the school to force all students to have uniform tablet computers, making sure that those who are richer do not bring expensive gadgets.

Teacher B4 said:

> They all have access to mobile technology, yes boys and girls, they all know that they need to bring their own devices. […] It is a school requirement.

Teacher D12 said:

> The challenge is not in the provision of mobile devices but in effectively monitoring their use. Some parents do not want their children to access mobile devices unmonitored, it is all about protecting kids.

To ensure that all learners had equal access to online learning, three strategies were used in all the schools. Firstly, all the schools implemented learning management systems (LMS) to provide learning content, assessment, tracking of learners' progress, and communication. For instance, School B utilises e-Cloud while School C employs ITSI e-learning platform. Secondly, all the schools integrated interactive and real-time online tools such as Google Meet and MS Teams for conducting live classes. Thirdly, teachers at School E provided subject-specific software to learners, such as, GeoGebra for mathematics. Teacher E14 disclosed that GeoGebra is a free software that can be downloaded on computers or mobile devices, hence all learners can access it. The following are the perceptions of the teachers:

Teacher B4 said:

> We have the Learn Cloud, learners can login, and access online resources such as video clips or animations while at school.

Teacher E14 said:

> I use a programme called GeoGebra. It is freeware. I encourage all my students to download it at home. There is also an app for smartphones. [...] It allows one to plot graph functions in mathematics and geometry.

3.2 Cyber Security of Online Learners

All the schools implemented and enforced cyber policies or cyber codes of conduct to protect students from cyber harm. Teacher A3 disclosed that the school's cyber policy delineates permissible conduct for both learners and teachers

in online learning. In that regard, teachers B5 and E13 revealed that the policies at their schools protect students by regulating which sites they can access or the content they can download. Additionally, School B was in the process of updating its cyber policy so that it can regulate recent technological developments. In all the schools, the policies regulated internet access, social networks, and cyber etiquette. The following are the perceptions of the teachers.

Teacher A3 said:
> [...] The ICT policy that I talked about earlier is there to restrict both learners and staff to activities that they can do on the school WiFi. Furthermore, the school has firewalls for safe Internet access, so you cannot do anything on our network.

Teacher B5 said:
> We have a policy that is being updated to cover other aspects currently not clearly covered in the current policy, things related to 4IR and social networks. [...] Our policy does not restrict learners in terms of how much they can download; they are restricted in terms of certain sites that they can access and activities that they can do, and our firewalls manage that.

The schools had policies to regulate internet access with BYOD. All the schools allowed students to connect their BYOD to the Internet only under the supervision of a teacher. The schools did not allow unsupervised connection to the Internet for ethical reasons; for example, School A was a Christian school that maintained ethical values in all aspects of life. Teachers in all the schools identified common cyber risks such as bullying and bad content. Bad content included the production and distribution of denigratory content such as porn, nudity, and defamatory videos that insult other learners. The following are the perceptions of some of the teachers.

Teacher B5 said:
> Traditionally, bullying is common among students at the school, especially in their social life. We know that bullying has changed from face-to-face to online. Because of that, we have strict measures that are supported by our policies. [...] We have zero tolerance.

Teacher E13 said:
> [...] because of the whole thing about cyberbullying and so on, we are just trying to restrict unsupervised WiFi access. Social networks are generally used for bullying in everyday life, in all age groups, and it is regrettable.

All the schools provided policies and codes of conduct to protect students from any form of unethical communication with teachers. Teachers from schools C, D & E revealed that communication with the learners was shared with parents.

Therefore, parents had access to all messages sent to learners related to homework, reminders, and sports updates. Teacher C7 indicated that WhatsApp communication was mainly directed to parents and not students. In this regard, teacher D11 stated that parents were included in online communication to ensure that they monitor the cyber activities of their children. The following are the perceptions of some of the teachers:

Teacher C7 said:

> Well, we have WhatsApp communication between teachers and parents, but there is not much communication between teachers and students on WhatsApp. [...] Yes, yes, we have WhatsApp communication between teachers; however, we cannot exchange phone numbers with students.

Teacher D11 said:

> We regularly communicate with parents; they are very important in online learning. When children need help, for example, to connect to the internet, parents call for help. [...] Parents must be there to ensure that when a child is online, he/she is learning and not doing other things like playing games or watching videos.

3.3 Teacher Competence

All the teachers indicated that their schools provided them with a variety of training on providing online teaching. Teachers in schools B & C revealed that training at their schools ranged from general to specialised training to cater for the needs of all the teachers. Teacher B5 disclosed that at their school, they received training on learning management systems (LMS), subject-specific tools, interacting with students, creating, and distributing teaching content. The following are the perceptions of some of the teachers:

Teacher A2 said:

> There is staff training on general computing, how teachers can use computers in teaching, for example, how to use the MS Office programme. Training takes place once a week for one hour.

Teacher B5 said:

> We receive training all the time, if there is something new, we get trained. [...] There is training for everyone, including training for our senior teachers who are of a different generation. […] We were trained on how to integrate computers into teaching, including content creation, sharing, and student support.

Teachers D10 and E15 disclosed that they attended training on online teaching. The schools trained teachers to use applications such as Google Classroom and

Microsoft Teams. Training also extended to specialised tools such as Stacy, a marking tool at school E, and game-based learning tools at school D. The following are the perceptions of some of the teachers:

Teacher D10 said:
> We attended many training sessions at this school, for example, Microsoft 365, One Note, Microsoft Teams, Google Classroom, and mobile apps. I know how to use all these things in any subject I teach.

Teacher E15 said:
> We have a new on-line marking administration system called Stacy, and we have been trained on how to use it. Before, we were using a system called Pencil box, which we could not access when we were at home. Stacy is online, we can mark and comment when we are at home.

3.4 Teacher Empathy

During the interviews, two acts of empathy were uncovered. Firstly, the teachers sympathised with online learners. The teachers indicated that they were required and willing to help online learners at any time. Teacher A3 disclosed that the teachers at their school were always online and helped learners. Similarly, Teacher C8 revealed that the learners at their school could consult with the teachers by email or Google meet. The following are the perceptions of some of the teachers:

Teacher A3 said:
> [...] your maths teacher is online, your English teacher is online, our learners can write emails, call, or have a face-to-face online discussion with teachers. I should take you there [Computer Centre] so that you can see and get an idea of how it works.

Teacher C8 said:
> Learners can get help from subject specialists [teachers] online. They can ask any question. Learners are strongly encouraged to send an email or arrange a Google meet session with online teachers when they need further help.

Secondly, the teachers sympathised with parents who needed help to set up computers for their children. Teachers from School B revealed that when parents and their children could not perform certain learning activities or got lost during live classes, parents would immediately seek help and disrupt class proceedings. When this happened, teachers had no option but to stop teaching to help parents. Furthermore, teacher D8 disclosed that some parents failed to help their children with basic tasks such as downloading and installing software or downloading e-books. These results revealed that empathy towards parents ensured that learning

happens in online learning. The following are the perceptions of some of the teachers:

Teacher B6 said:

> During the early days of live online classes, parents would attend the whole class with their children, especially during COVID 19, and will ask questions at any time, which disrupted classes. [...] We had to cool down and attend to the parents' queries.

Teacher D8 said:

> It was not because some parents were computer illiterate, no, there are certain things that they were not familiar with and could not help their children get started with online learning. [...] For example, parents had to buy an e-book online, download it, and upload it to a tablet. When some parents were unable to do it correctly, teachers had to intervene and help parents.

3.5 Discussion

This section discusses the results and answers the research question, "How can schools provide ethical online learning?" The study found that the main constructs that inform the provision of ethical online learning are: (4.1) equal access, (4.2) teacher competence, (4.3) teacher empathy, and (4.4) cyber security of learners. The relevance of these findings is discussed in the context of the theoretical framework, practice, limitation, and future work.

1) Equal Access

The sampled schools were ethical in providing equal access to online learning, which was consistent with the ACM code of ethics [3]. The ACM code of ethics stipulates that the provision of information technology resources should be equitable. The results of this study contradict studies that found that learners were unintentionally discriminated against in online learning because they were not provided with access to computers connected to the Internet [17, 18]. The provision of online learning at the sampled schools was in line with the requirements of the South African Constitution, which specifies that access to education is a human right and that learners should have equal learning opportunities [15]. Mason [1] underscored that equal access to information technology is ethically provided if recipients are computer literate and have direct access to computing resources and information. These ethical requirements were met at all the schools.

Strategies for providing equal access to online learning included Bring Your Device (BYOD) and access through school computer centres. School computer centres provided students with access to various online learning resources.

Regarding BYOD, to ensure uniformity of devices among learners, the schools prescribed specifications for tablet computers. Uniformity ensured that the students remained at the same level without those from richer families bringing outstanding devices. Strategies used to provide equal access were within the National Educational Policy Act of 1996, which gives schools the power to identify barriers and provide appropriate remedies to promote equal learning opportunities [15].

Therefore, equal access to online learning can be provided by giving learners access to computers connected to the Internet, and to make BYOD compulsory so that learners have access to online learning when they are at home. Schools should prescribe BYODs so that learners have uniform devices ensuring that learners from richer families do not bring expensive gadgets to school.

2) Teacher Competence

Despite teachers having professional competence to teach, they were trained on how to provide online learning. Training covered aspects such as content creation and using online teaching tools such as MS Teams. Improving teacher competency is consistent with the ACM (2018) code of ethics [3], which requires that anyone who provides computing resources should have the technical skills to do so. Furthermore, the continuous professional development of teachers met the requirements of the South African Council of Educators (SACE) Code of Professional Ethics, which requires teachers to commit to professional development [15, 16]. The strength of continuous professional development is that it equips teachers with the skills to make ethical decisions when responding to challenging and complex teaching environments [36]. In this sense, if teachers had not received training, it would have been unethical for schools to require teachers to teach online. Therefore, to provide ethical online learning, schools must train the teachers.

3) Teacher Empathy

Unique to this study, teachers empathised with parents when they asked for help to assist their children when faced with online learning challenges. The teachers realised that if parents as co-facilitators of teaching and learning were unable to help their children, online learning was not going to be successful. In this way, the teachers provided an environment conducive for online learning, while not shifting the responsibility to parents. This finding is consistent with Matthews [37], who found that empathy improves human experience. In this regard, Arnold [38] argued that a favourable environment is an antecedent for optimal cognitive functioning of learners. The care of duty practised by the teachers towards learners and their parents in this study is recognised by some studies as an antecedent to successful online learning [9, 39]. Therefore, teacher empathy plays an important role in the success of online learning. To practice empathy, teachers must listen,

communicate, engage, motivate, sympathise, and respect both parents and learners.

4) Cyber Security for Learners

This study found that the schools protected students from cyber risks through cyber security policies or code of conduct. The policies delineate code of conduct for communicating, interacting, and sharing online resources. To ensure that all stakeholders adhered to the policies, the schools required students and their parents to sign to pledge their loyalty to the policies. By providing policies, schools met the ACM (2018) code of ethics that requires organisations to provide and communicate information technology policies [3]. The provision of cyber policies at schools aligns with the SACE Code of Professional Ethics, which requires schools / teachers to protect students from any harm[16]. Although the SACE Code of Professional Ethics does not specifically discuss cybersecurity, it requires schools/teachers to be considerate of their duties and to comply with the constitution of South Africa [22]. It is within the 1996 National Educational Policy Act that schools and teachers must practice duty of care, which means ethically protecting learners within the learning environment [15]. Therefore, schools that provide online learning should provide cyber policies that protect learners from cyber risks.

3.6 Limitations

The findings of this study are possibly limited by the sample size and inclusion criteria. The inclusion criteria only selected schools from an urban district that provided blended learning. Furthermore, voices of teachers from schools outside of the selected district were not heard. To overcome sampling limitations, future research should focus on collecting data from a larger sample. The sample should cover more districts in urban and rural South Africa.

4. CONCLUSION

This study found four aspects that underpin ethical provision of on-line learning in high schools, and they are equal access, teacher competence, teacher empathy, and cyber security of on-line learners. Equal access to online learning can be achieved if all learners have equal opportunities to access online learning resources. Two strategies were identified for providing equal access. Firstly, a school should provide computer resources to all learners. Secondly, if schools cannot afford to provide devices to students to take home or use at school, the school should implement BYOD to ensure that students can access online learning. These strategies possibly ensure that all learners have equal access to online learning without segregating any learners.

The provision of online learning should only begin when teachers have received training. It is unethical for schools to implement online learning if teachers are not competent. Empathy towards learners and parents is an important ethical factor in online learning. Learners require personalised academic help from teachers while parents need support from teachers so that they can help their children when they face online learning challenges. The ethical provision of online learning calls for cyber security of learners. The first line of defence against cyber risks is the provision and enforcement of cyber policies. Policies should protect learners from cyber risks such as cyberbullying, and cyber fraud.

The results of this study are valuable for they inform the ethical provision of online learning. Practically, if the identified aspects of providing ethical online learning are implemented, which are equal access, teacher competence, teacher empathy, and cyber security of online learners, there is a high likelihood of providing successful online learning at schools. Theoretically, the results of this study contribute to the body of knowledge on providing ethical online learning in high schools in South Africa and other countries.

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