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Experiences of Teachers and Pupils on E-learning Preparedness in Selected Urban Schools of Lusaka District, Zambia: An Interpretive Phenomenological Study

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Abstract

The study focused on the experiences of teachers and pupils on e-learning preparedness in selected urban schools of Lusaka anchored on interpretive phenomenological perspective. The aim of the study was to explore the experiences of teachers and pupils on e-learning and establish the measures put in place on e-learning preparedness in the selected schools of Lusaka urban.

The study used an interpretive phenomenological theoretical framework based on discussions and reflections on direct sensory observations and experiences of the learners. The starting point for using interpretive phenomenology in this research was our ability to approach this research without knowing a priori assumptions. Phenomenological theoretical framing has been used as a broad and loose name for various analyses that have emphasized experiences, interpretations, narratives, and discourse based on the phenomenological orientation of social science philosophy.

Methodologically, employed a qualitative approach particularly in analyzing data. To do so, the study took a total sample size of 25 participants such as 10 pupils, 9 ICT teachers, 2 Head Teachers, 2 specialists from the Curriculum Development Centre (CDC) equaling to the total of 25 participants. Technically, the researchers used purposive sampling, specifically homogenous sampling to select head teachers, pupils, and curriculum experts. Data

was collected using detailed Interview Guide, focus group discussion and observation Checklist on the preparedness of e-learning in selected schools of Lusaka, district in Zambia. Further, data was analysed using thematic analysis where major themes were drawn and coded. Based on the study findings it is evident to note the teacher's experiences and challenges of e-learning preparedness were due to the lack of ICT infrastructure, lack of trained ICT teachers, Poor network connectivity, lack of acceptance to new technology, electricity load shedding and the lack of parental involvement in e-learning programmes. Further, on usage, the study revealed that pupils did not know how to use the e-learning platforms, and mostly there is inadequate skills and knowledge of eLearning software to both teachers and learners. The study postulates the strategies on e-learning preparedness that should include training of Trainers of ICT, Building ICT infrastructure, and ensuring that ICT is a compulsory subject from primary to secondary schools. Additionally, a continuous Professional Development for all teachers on e-learning, monitoring and evaluating of e-learning assessments and feedback should be encouraged in all schools. The study recommended the forgoing to authorities in the education sector for sustainability, as case studies and best practices, digital literacy and pedagogical approach applicable in Zambia.

Keywords: Corruption, Learners, Preparedness, E-learning Experiences, Phenomenology

Background to the study

The rapid growth of knowledge and information has made it possible to learn quickly. Unfortunately, there are challenges to fast learning and responding to them requires a new way of thinking about how we can acquire information and ICT skills, as well as how to build learning opportunities that can keep up with the knowledge economy. According to United Nation-UN Sustainable Development Goal number four, promotes the access to quality education. This implies that by 2030, sustainable education should be attained worldwide or achieved. However, there are lot of disruptions to the education system such as cholera, corruption, COVID19 or any unforeseen emergencies or pandemic diseases have negatively affected the education sector. According to Phiri (2022) ^[41] and the Michelson Institute (2006: 3) ^[35], corruption in the education sector takes various

forms, some of which are not so obvious. It includes: The diversion of funds intended for school needs such as eLearning; the granting of schools places to children influenced by the granting of monetary or material favours by parents; teacher recruitment, postings and promotions influenced by bribes or nepotism; private tutoring outside school hours given to paying pupils reducing teachers' motivation in ordinary classes, and reserving compulsory topics for the private sessions to the detriment of learners who do not or cannot pay for them; teachers engaging in sexual relationships with learners and examination malpractices. In this context, e-learning is inevitable among learners in schools both primary and secondary schools including universities. The Ministry of Education- MOE needs to provide quality education by incorporating e-learning platforms to learners and train teachers on the usage of e-learning that is compromised due to these challenges.

The introduction of digital technologies has created numerous opportunities for the development of various business sectors including commercial trade, health and education and has had a huge effect on the way information is communicated to everyone (Mukosa & Mweemba, 2019). Moreover, in 2020, the Ministry of Education launched the e-Learning platform and smart revision portal for Zambian primary and secondary school learners. This is a digitalized virtual classroom where students can access lessons using mobile phones and other internet devices (Ministry of General Education (MoGE), 2020)^[37]. With the increasing need for learning institutions like schools to incorporate innovative methods of instruction (Toquero, 2020)^[53], transition to E-learning has emerged as an unavoidable option in the current COVID-19 era and beyond.

Institutions that use e-Learning for teaching and learning face a number of challenges. Some of the challenges that have been identified as a barrier to many Zambians benefiting fully from the advantages offered by e-Learning methods. Further, this is compounded by the low numbers of people with Internet access, availability and affordability of computer hardware and the cost of acquiring training (Konayuma, 2007). In addition, "the penetration levels of ICTs in Zambia's education institutions remains low, with those schools that are equipped mostly utilizing second-hand and refurbished computers.

In order for e-learning to be successfully implemented or adopted in the education sector at primarily, in and secondary education, it is cardinal to have in place the requisite resources that make it possible for access to the internet to be available on a regular, efficient and timely basis.

Countries such as the United States of America (USA), China and United Kingdom (UK) have thrived in terms of e-learning at higher education and lower education levels, and this success has been attributed to the availability of modern or state of the art ICT infrastructure and professionals with the requisite skills and knowledge.

Government of the Republic of Zambia through Ministry of Education (MoE) has a task to ensure that education is being given or delivered to citizens is of high quality, effective and efficient, and this means overcoming challenges associated with access to education. Unfortunately, this task has not been achieved. In agreement with Phiri (2024)^[45] high quality education is not delivered by the ministry of education for lack of the epistemological position adopted in a post positivism paradigm. The post-positivist stance

asserts that research requires an ability to see the whole picture (Phiri 2024)^[45], which lacks in the eLearning platforms introduced by the MoE in Zambia.

In Zambia, issues pertaining to challenges related to access to the internet have been well documented and discussed. Literature review in Zambia indicates that the cost of internet, lack of devices for internet access and also the poor quality of internet services in Zambia are major challenges in implementing e-Learning in higher learning institutions (Mukosa & Mweemba, 2019). Additionally, Zambia is in the top eight of the countries with higher costs of technology and this could mean that delivering e-learning faces challenges in that the price of internet creates a digital divide and reduces expansion of online learning programs.

Statement of the problem

The situation in Zambia on e-learning seems to be unsatisfactory due to lack of facilities in schools, unqualified expertise on the use of ICTs and corruption in the pedagogy process when procuring of ITCS learning materials. In agreement with Phiri *et al* (2022)^[43] who argues that the active learning pedagogical approach is necessary for the development of higher-order cognitive skills to learners because it enhances critical thinking and the problem-solving technique among them. It is this interactive process which is done online, but susceptible to corruption in the education sector in Zambia.

It has been observed that large numbers of teachers have not acquired the requisite competencies for e-learning, this has been compounded by negative attitudes by pupils and lack of access to electricity especially in the rural parts of Zambia. Yet, most of the e-learning challenges are ignited by corruption, as cited by Phiri *et al* (2022)^[43] who contend that: "corruption in the education sector takes various forms, some of which are not so obvious. It includes: The diversion of funds intended for school needs; the granting of schools places to children influenced by the granting of monetary or material favour by parents; teacher recruitment, postings and promotions influenced by bribes or nepotism; private tutoring outside school hours given to paying pupils reducing teachers' motivation in ordinary classes, and reserving compulsory topics for the private sessions to the detriment of learners who do not or cannot pay for them; teachers engaging in online sexual relationships with learners and examination malpractices" The lack of ITC equipment makes learners who cannot afford vulnerable to corruption, of different kinds. According to ZICTA (2018) National Survey on access and use of ICT revealed that 73.6% owned mobile phones, 29.6% had smart phones, thus implying that most of the people possess basic phones, which are non- internet based. Further, access and use stands at 14.7% in urban areas and 2.7% in rural areas. This signifies that there is a huge disparity in access. The situation in Zambia saw the closure of schools forcing 4.4 million pupils out of school, due to lack of ICT infrastructure, and unsatisfactory ICT skills during the COVID-19 era-. It is against this backdrop that this study is set out to explore the experiences of teachers and pupils on e-learning preparedness in selected schools in Lusaka.

Purpose of the study

This study explored the experiences of teachers and pupils on e-learning preparedness in selected schools of Lusaka

Research Objectives

1. To explore the experiences of teachers and pupils on e-learning preparedness in selected schools of Lusaka.
2. To establish the measures put in place on e-learning preparedness in selected schools of Lusaka.

Research questions

1. What are the experiences of teachers and pupils of e-learning preparedness in selected schools of Lusaka and Kitwe Districts?
2. What measures have been put in place to support e-learning preparedness in selected schools in Lusaka?

Significance of the study

E-learning has positively changed the way lessons are conducted and comprehension on the part of pupils. Therefore, the study is significant because the results provide vital information, to the Ministry of Education, Curriculum Setters and other policy makers in education, on the factors influencing e-learning preparedness in elementary and secondary education in Zambia. It also provides them with knowledge of the essence of ICT contribution to the teaching-learning techniques. Based on the study findings to be collected, the information lead to an increasing knowledge base on the use of e-learning in rural and remote areas of education. The study might raise awareness on the experiences of teachers and pupils on e-learning preparedness in selected schools of Lusaka

Literature review

Readiness or Preparedness is a variable which is often emphasized and measured in distance learning, e-learning and online learning researches (Fogerson, 2005; Horzum & Çakır, 2012; Hukle, 2009; Leigh & Watkins, 2005; McVay, 2000; Smith, 2000, 2005; Smith, Murphy, & Mahonay, 2003; Watkins, Leigh, & Triner, 2004) further explained that e-learning readiness is a powerful factor in successful e-learning implementation (Mosadegh, Kharazi, & Bazargan, 2011).

The success of any information system depends on the usage of the system by users (Almaiah, 2018). Thus, in the context of e-learning system, student's acceptance of e-learning is considered as one of the main criteria for the success e-learning system.

a) Framework of measuring levels of readiness

Measuring the level of e-learning implementation readiness in primary and secondary schools require clear understanding of how key e-learning environmental components interact. The main components of e-learning implementation to be examined are people and technology. Students and learners (students) are the people whose readiness to accept and use e-learning should be measured. School management must always be ready to support learning initiatives.

A framework showing all the E-learning environmental components and their interactions in respects to e-learning implementation readiness used in this study is shown in Fig 1 below.

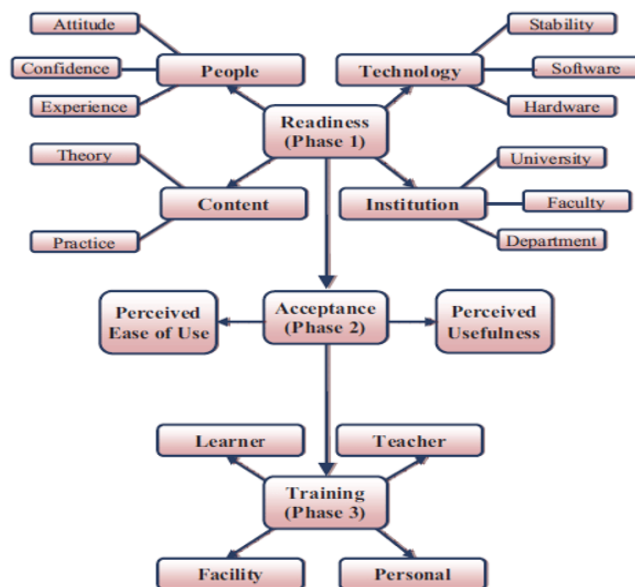


Fig 1: A multi-layer model of e-learning readiness (Akaslan & Law, 2011)

The main components of the model are readiness, acceptance, and training. The readiness dimension comprises people, technology, content, and institution. The acceptance component was framed with Davis' (1989) TAM. The training component consisted of learner, teacher, facility, and personal sub-components. Within the model of Akaslan and Law (2011), developed for students, there is one additional component, which is traditional skills, in the people component. Moreover, this component consists of three sub-components: Self-motivation, self-responsibility, and lastly time management skills.

Empirical Literature on Factors Influencing E-Learning Preparedness: Global Perspective on Factors Influencing E-learning Preparedness

In Iran, Studies done by Farazkish and Montazer (2019)^[16] was aimed at assessing the level of e-learning readiness among the faculty members in Iranian universities. Methods: This is a survey research and the statistical population included all faculty members of 23 selected Iranian universities in March-September 2018. The population of the study included about 750 professors selected through simple random sampling. The instrument of study was a questionnaire titled "Evaluation of Instructors' Readiness for E-learning in Iranian Universities". Its content and face validity were verified by professionals, and its reliability was measured through Cronbach's Coefficient alpha which was (0.72-0.86). To analyze the data, descriptive and mean, SD statistics (independent T-test) were used. Results: The average e-readiness score of professors from the 23 selected universities amounted to approximately 4.3 out of 10, which is indicative of a relatively "weak" e-readiness status. Also, the score of over 60% of the criteria was "less than average". Conclusion: Given the decreasing numbers of e-learning students in Iran, the results of this study show that one of the important reasons for the failure in the

development of universities' e-learning systems can be the lack of e-learning readiness among instructors. Studies by Gunga and Rickets, (2007)^[19] on facing the challenges of e-learning initiatives in Africa showed that technophobia invokes a wide range of negative emotions such as anxiety, incompetence, fear, stress and nervousness. In developing countries, the introduction of computerised systems in organisations may not be viewed positively unless sensitisation programmes precede their implementation. The fear of losing jobs through redundancy as a result of computerisation process is a common phenomenon. However, as the workforce realises that proficiency in computer operations also leads to one's personal development, resistance to the introduction of computers is reduced.

In Saudi Arabia, a study conducted by Almaiah and Alyoussef (2019)^[33] revealed the main determinants that could play an important role in increasing the usage and acceptance of e-learning systems among Saudi undergraduate and postgraduate students at King Faisal University (KFU). The study employed the Unified Theory of Acceptance and Use of Technology (e-UTAUT) model and introduced new constructs to study the acceptance of e-learning systems in the Saudi Arabian context. The data were collected using a questionnaire survey from a total of 507 undergraduate and postgraduate students at King Faisal University (KFU). The research model was tested using the structural equation modelling technique (SEM). Based on the results, the factors of course design, course content support, course assessment and instructor characteristics were shown to have a significant effect on the actual use of e-learning systems. However, the influence of social influence on actual use was found to be statistically insignificant. Additionally, the course design, course content support, course assessment and instructor characteristics factors were found to have a positive effect on the performance expectancy of e-learning systems. But, what is missing in this study was similar to Kalumba *et al* (2023)^[24] observation on strategy, addressing inequalities of wealth and power at every level, from the household to national government, unequal power relations in public life. This shows how e-learning programmes are affected by Kalumba's observation in the education sector. Al-Awidi & Aldhafeeri (2017)^[6] study was to investigate how Kuwaiti teachers perceive their own readiness to implement digital curriculum in public schools, and the factors that affect Kuwaiti teachers' readiness to implement digital curriculum from their perspectives. Using a mixed-method research methodology, a random sample of 532 teachers participated in an online survey to determine the level of their readiness. In addition, semi-structured interviews were conducted with a sub sample of the participants (21) to explore the factors that affect their readiness. The researchers developed and implemented a technology readiness survey in two domains (technical and pedagogical). Teachers are moderately ready for implementation of the digital curriculum in both components of readiness (technical and pedagogical). Teachers identified some factors that hinder their readiness. These factors are related to time constraints, knowledge and skills, infrastructure, and technical support.

In Iraq, Abdullah & Toyacan (2017)^[1] study analysed the factors for the successful e-learning services adoption from education providers' and students' perspectives, with the main focus on private Universities in Northern Iraq. A Two-

step research methodology is applied in private Universities of Northern Iraq by utilizing a hypothesized model of technology acceptance model (TAM). First, the readiness factors were investigated through university staff by analysing 516 participants. As the second research objective, the intention of students is explored with 256 valid respondents in these universities. Data were obtained from seven private Universities' staff and students via a paper based quantitative survey. Respondents were selected based on the convenience sampling method, where researchers visited universities during the semester with permission of their administration bodies. The findings reveal that the lowest value was for human resource readiness factor. Cultural acceptance, both from education providers' and students' perspective, is quite crucial in order to have a sustainable e-learning applications. From a technical point of view, our findings also confirm the importance of the technological readiness and the main TAM constructs of perceived ease of use (PEOU) and perceived usefulness (PU).

In Kuwait, Aldhafeeri & Khan (2016)^[7] study sought to determine Kuwait University academic staff's implementation of Web 2.0 educational platforms into their teaching courses as well as identify how prepared they are in using them and the challenges surrounding them. The study also aimed to investigate the reasons for the disinclination of utilizing Web 2.0 educational platforms in their teaching. The study adopted a mixed method approach for achieving the objectives and answering the research questions. Tools were represented in the forms of a questionnaire and interview, and both were confirmed for validity and reliability. The results show that academic staff at Kuwait University agreed on the implementation of Web 2.0 educational platforms into their teaching courses; however, some challenges caused their willingness to implement these platforms to decline. The study additionally found that there were cultural, technical, and other reasons for the disinclination to use Web 2.0 educational platforms and that an administrative reason restrained some academic staff from implementing them in their courses.

In Malaysia, several studies by Ghavifekr & Rosdy (2015)^[18] indicated that at analyzing teachers' perceptions on effectiveness of ICT integration to support teaching and learning process in classroom. A survey questionnaire was distributed randomly to the total of 101 teachers from 10 public secondary schools in Kuala Lumpur, Malaysia. The data for this quantitative research were analyzed for both descriptive and inferential statistic using SPSS (version 21) software. The results indicated that ICT integration had a high degree of effectiveness for both teachers and the students. Findings indicated that teachers' that were well equipped with ICT tools and facilities was one of the main factors in success of technology-based teaching and learning. It was also found that professional development training programs for teachers also played a key role in enhancing students' quality learning.

Ahmed and Albugami (2015) study in Saudi Arabia sought to assess the success factors for ICT implementation in Saudi secondary schools, with the main focus being on the perspectives of ICT directors, head teachers, teachers and students. The study was primarily concerned with qualitative data, collected in semi-structured interviews with two ICT directors, four headmasters, four teachers and four students, in Saudi secondary schools. Generally, the results

showed that some challenges that affect the application of ICT in Saudi schools are, for example, the lack of space, resources, maintenance, a lack of ICT skills among school along with a lack in ICT training and a lack of clear ICT policies.

In Sweden, Wajszczyk (2014)^[54] study analysed the current state of the use of Information and communication technology (ICT) and its impact on pupils in their early stages of education. The aim of the study was to find out how, when and in what context ICT is used in the work with students. The overall objective was to study teachers' views on ICT and their opinion on how ICT does affects pupils - positively or negatively. The researcher used qualitative methods, namely in-depth interviews and surveys in strategically chosen primary schools in Sweden. The result of the study showed a number of different aspects and issues that introduction of ICT into early education has caused and how it influences both teachers and students. As a result of the interviews and the survey answers, the main factors that had the highest degree of influence on how ICT affects pupils was the access to technology and the abilities of both students and teachers. Despite all negative effects that ICT may be associated with, it was concluded that the impact of ICT on impact on pupils in their early stages of education was positive in most cases.

In United Kingdom (UK), Gurmak & Glenn (2014) paper was aimed at identifying and examining the antecedents that enable or constrain the adoption and diffusion of eLearning in higher education (HE). The key focus of the study is on the examination of how the organisation's diffusion structures, systems or processes influence the individual adoption of eLearning. An extensive search of the literature was conducted. The selected references were analysed into a number of categories; macro-level studies examining HE context of e-Learning, micro-level studies focusing on individual and social factors and articles focusing on management issues of adoption and diffusion of technological innovations. Finally, over 300 articles were used to compile the findings of this paper. The paper identified that the importance of individual factors influencing the adoption of eLearning has been acknowledged by the above studies, and the underlying message has emerged that levels of e-learning adoption would be higher if strategic managers recognised the social dimensions of eLearning innovation and diffusion, such as: Academic and professional goals, interests and needs; technology interests; patterns of work; sources of support; and social networks.

In Bahrain, Taha (2014)^[52] research attempted to investigate the factors that influence the implementation and development of E-Learning and the most appropriate framework for secondary schools in Bahrain. The research adopted a quantitative approach to examine both teachers' and students' perceptions of critical factors in secondary schools in the Kingdom of Bahrain. A total of 540 respondents completed the survey-based questionnaire. The results revealed that there are four sets of factors which influence the success of E-Learning in the school education sector. These are: Students' characteristics (computers skills; motivation and attitudes); teachers' characteristics (attitudes; control of technology and pedagogy and teaching style); technology (quality of technology and effectiveness of infrastructure) and design and content (perceived ease of use and quality of content). In addition, the findings show

that there are some differences in perceptions amongst teachers according to gender, specialization, teaching experience and E-Learning experience. Similarly, the findings show that there are some differences in perceptions amongst students according to gender, specialization and level of study (years in school).

A study in Jordan by Qazaq (2012)^[46] investigated the degree of the readiness of academic staff towards the implementation of e-learning in universities in Jordan. The questionnaire was administered to 367 academic staff from the north, middle and the south of Jordan. In addition, the researcher interviewed 24 academic staff. Thus, the researcher integrated quantitative and qualitative methods which combined the use of questionnaire and interviews. The researchers used descriptive statistics, one-way ANOVA, t-test, correlation and hierarchical regression to analyse the data. The study revealed that the academic staff readiness towards the implementation of e-learning was high. The study also showed that the academic staff was making progress, but more efforts should be made to overcome some hindrances related to infrastructure and lack of e-learning tools. The results also showed that there was no difference in the degree of readiness between academic staff in public and private universities towards applying e-learning. Furthermore, the results indicated that there was no statistically significant difference based on gender, age, experience, type of university and ranks in applying e-learning. On the other hand, the study revealed that technology policy moderated the relationship between e-learning readiness and implementation.

In Taiwan, Chen & Tseng (2012)^[21] studied the role of the teacher's perspective in the acceptance of using web-based e-learning systems for in-service education. We distributed questionnaires to 402 junior high school teachers in central Taiwan. This study used the Technology Acceptance Model (TAM) as our theoretical foundation and employed the Structure Equation Model (SEM) to examine factors that influenced intentions to use in-service training conducted through web-based e-learning. The results showed that motivation to use and Internet self-efficacy were significantly positively associated with behavioural intentions regarding the use of web-based e-learning for in-service training through the factors of perceived usefulness and perceived ease of use. The factor of computer anxiety had a significantly negative effect on behavioural intentions toward web-based e-learning in-service training through the factor of perceived ease of use. Perceived usefulness and motivation to use were the primary reasons for the acceptance by junior high school teachers of web-based e-learning systems for in-service training.

Neyland (2011)^[39] investigated factors associated with integration of online learning in Sydney high schools. The research was carried out by conducting interviews and questionnaires in New South Wales secondary schools. After questionnaires and interviews conducted with computer coordinators during 2009, it was found that immediate school factors such as school support and focus on pedagogy were perceived as being more important than broader systemic factors. Past studies have shown that schools can be identified as operating at a certain level of use - ranging from non-use, through stages such as entry, and adaptation, arriving at transformation - when a focus on technology shifts to a focus on the learner. The study concluded that school support and the micro factors such as

teacher capabilities are important.

In United Arab Emirates (UAE), Ahmed (2010) conducted a study on implementing E-Learning in the United Arab Emirates (UAE) University. The study examined the critical success factors that influence the hybrid E-Learning acceptance, which included instructor characteristics, information technology infrastructure and organizational and technical factors. The results found out that all the above-mentioned factors significantly and directly affected the learners' acceptance of a hybrid E-Learning course. The results also indicated that the information technology infrastructure and organizational and technical factors were considered as the most important and significant factor that affected the success and acceptance of E-Learning.

Regional Perspective on Factors Influencing E-learning Preparedness

In Nigeria, Eze *et al* (2020) ^[15] study explored factors influencing the use of e-learning by students in private HEIs in Nigeria using Technology-Organisation-Environment (TOE) framework. Data was collected using semi-structured interviews with fifteen (15) students from L-University drawn purposefully from the Landmark directory and a hybrid thematic analysis to analyse the data. Findings revealed that technology-related factors (ease of use, speed accessibility and service delivery), organisation-related factors (training support and diversity), environment-related factors (attitudes of the users) and impact-related factors (learning experience, skill development, academic performance, and degree of engagement) influenced the students' adoption of e-learning facilities.

In Kenya, Tsindoli & Opati (2018) study assessed teacher preparedness for the implementation of e-learning programmes in Emuhaya Sub-county in Kenya. The target population of the study was 664 class teachers from 83 public primary schools, each school providing eight teachers. Simple random sampling method was used to select 25 public primary schools from 83 schools in the sub-county. The sample size comprised 200 class teachers as respondents selected from middle and upper primary. Questionnaires were administered to class teachers and their responses presented in frequencies and percentages for the purpose of data analysis. The findings of the study revealed that teachers are not well prepared to implement e-learning programme therefore a lot of resistance to the programme. Teachers require sufficient time to prepare for integration into the new system of instruction. In order to address the problem teachers, need encouragement through pre-service and in-service training. The respondents encounter challenges such as computer illiteracy and phobia, lack of computers and e-learning classrooms, lack of electricity, financing of e-learning programmes, sensitization of stakeholders, accessibility and time for training, old age and attitude.

In South Africa, Coopasami *et al* (2017) ^[34] study assessed students' readiness to make the shift from traditional learning to the technological culture of e-Learning at a university in Durban. A quasi-experimental study design was employed to assess such readiness in first year nursing students before and after an appropriate educational intervention. A modified Chapnick Readiness Score was used to measure their psychological, equipment and technological readiness for the change in learning method. It was found that, while students' psychological readiness for

e-Learning was high, they lacked technological and equipment readiness. Although e-Learning could be used in nursing education, technological and equipment readiness require attention before it can be implemented effectively in this institution.

In Egypt, Ali (2016) ^[9] study was aimed to assess readiness of nursing students for e-learning in El Dawadme Applied Medical Science, Shaqraa University. Cross sectional, descriptive research design was used to investigate readiness of nursing students for e-Learning among a purposive sample of 113 female nursing students. The data were collected by using two tools. The first was concerned with collecting data related to sample characteristics; the second was a self-administered questionnaire, concerned with assessing the students' readiness for the e-Learning. The study found that the majority of nursing students revealed total high score level of e-Learning readiness. Technology Acceptance's average score was the highest and the Motivation average score was the lowest. Further, the study found that nursing students of different academic level (3rd to 8th level) showed statistically indifferent average score of e-Learning readiness while, those with different preference to study through e-learning, showed statistically different average score of e-Learning readiness.

In Tanzania, Kisanga & Ireson (2015) ^[26] barriers and strategies on adoption of e-learning in Tanzanian higher learning institutions, data was gathered from a series of semi-structured interviews with e-learning experts from two Higher Learning Institutions in Tanzania. The findings revealed five (5) major barriers were identified towards adoption of e-learning in Tanzanian higher learning institutions, these were: Poor infrastructure; financial constraints; inadequate support; lack of e-learning knowledge and teachers' resistance to change.

Mingaine (2013) ^[36] study explored challenges in the Implementation of ICT in Public Secondary Schools in Kenya. A descriptive survey research design was adopted. Out of 350 public secondary schools in Meru County, 105 (30%) were sampled for the study. A total of 315 respondents were sampled through stratified and simple random sampling. Questionnaires were used as main instruments for data collection. Validity of the questionnaires was ensured through judgment of experts, while reliability was established through test and re-tests method during pilot study. Out of 315 questionnaires distributed, 220 (69.8%) were properly filled and returned. Data analysis employed both inferential and descriptive statistical techniques after which the results were presented in tables supported by some discussions. The result of the study indicated that limited supply of qualified teachers and high cost of infrastructure were impediments to implementation of ICT.

In Kenya, Ouma *et al* (2013) study investigated the preparedness of ten schools which benefited from ICT development funds within Rachuonyo South and Rachuonyo North districts. The survey examined the level of technical competency and computer literacy among teachers and students, their attitude and perception towards the use of e-learning. Descriptive research was used to obtain information concerning the level of e-learning implementation readiness and to describe the scenarios with respect to conditions in schools. Teachers' and students' computer literacy as well their perceptions and attitude towards technology were significant measures of e-learning

implementation readiness. These research findings show that teachers and students are ready to embrace e-learning technology, but there is needed to enhance their technical capacity through training for successful e-learning adoption. Though most students accept e-learning, they lack basic computer skills required of them to effectively use e-learning platform. The study revealed a positive correlation between computer literacy and e-learning acceptance.

National Perspective on Factors Influencing E-learning Preparedness

Miyanda (2020) [38] studied the effect of a web-based e-learning in Zambia for primary and secondary schools. The survey questionnaire was administered to pupils in urban and rural primary and secondary schools in Solwezi District. Data were analysed using descriptive statistics with the aid of the statistical package. The piloted data were analysed to calculate its reliability and special attention was given to relevance of survey questionnaire and clarity of instructions for this research. Results of the study showed that pupils have access to E-learning and their exposure to a great extent. The study revealed that majority of the respondents had mobile phones which had internet facility on them to access the on line lessons and had knowledge of the existence of a web-based e learning using phones and spent between thirty minutes to three hours per day. In addition, the study revealed that the use of e-learning had affected academic performance of the pupils negatively and that there was direct relationship between the use of new technology and the performance. Studies done by Mwesh *et al*, (2022) in Lusaka indicated that the challenge was

experienced because of the varying degree of preparedness of the institutions, Staff, and students. Transitioning was a challenge because some of the lecturers and students did not have any background/adequate training in ICT or knowledge on how to use the different platforms or tools associated with eLearning. It is worth noting that despite its popularity, the curricula being transited to create e- learning instructions have not been altered and their design is also the same as that used in face-to-face settings. Mere regurgitation of materials extracted from books and classroom courses is a major error of e-learning curricula design. Irrespective of the divide on which seasoned educators are found, there is unanimous agreement on the huge differences that exist between e-learning and conventional classroom learning. In other words, there is a need for curriculum re-design specifically to accommodate online environments. The transition will require institutions to evaluate, redesign or adapt current curricula and develop methods that position the students as moderators of learning aided by tutors. This will require developing teaching materials and presentations in a digitally and student-friendly way that attempts to preserve the social context of a classroom as this is critical to effective learning (Mwesh *et al*, 2022)

Knowledge Gaps

All the studies conducted on the E-learning did not address how to incorporate e-learning during pandemic diseases and unforeseen emergencies. Studies done by Jordan, (2012), Eze, (2020) [15], Montazer, (2019), Almaiah, (2019) [33] focused more on universities on E-learning while this study is focusing on school.

Table 1

Author	Year of Study	Findings/ Focus	Knowledge Gap
1. Farazkish and Montazer	2019	Readiness for E-learning in Iranian Universities". Its content and face validity were verified by professionals, and its reliability was measured through Cronbach's Coefficient alpha which was (0.72-0.86). To analyze the data, descriptive and mean, SD statistics (independent T-test) were used. Results: The average e-readiness score of professors from the 23 selected universities amounted to approximately 4.3 out of 10, which is indicative of a relatively "weak" e-readiness status.	This study concentrated more the universities and was heavily quantitative while this study took an interpretive phenomenological approach. The studies might not sufficiently address cultural factors influencing e- learning. There was also limited exploration on the pedagogical strategies and readiness. The study did not comprehensively assess the actual technological infrastructure.
2. Almaiah and Alyoussef	2019	Findings revealed the main determinants that could play an important role in increasing the usage and acceptance of e-learning systems among Saudi undergraduate and postgraduate students	The study focused more both undergraduates and post graduates while study concentrated on one issue particularly secondary schools. The quality of content
3. Bwalya and Nakamba	2018	Explored the challenges and opportunities that E-Learning has on schools that are in rural and remote areas of Mumbwa District in Mumbwa. In order to obtain data, a total of fifty (50) questionnaires were given to the respondents among them, twenty (20) administrators who include the District Education Board Secretary (DEBS), and the Head Teachers from the selected schools.	The study looked the opportunities of e-learning but did not address how prepared learners were in conducting e-learning.
4. Gurmak Glenn	2014	In United Kingdom (UK), study aimed at identifying and examining the antecedents that enable or constrain the adoption and diffusion of eLearning in higher education (HE). The key focus of the study is on the examination of how the organisation's diffusion structures, systems or processes influence the individual adoption of eLearning.	Again, this study by Glenn dwelt more on higher learning institution neglect Education for All,- (EFA) which starts from basic education.
5. Konayuma	2015	A study in Zambia by Konayuma (2015), was aimed at investigating the enablers and challenges in the implementation of e-Learning policies in public	This study was looking at e-learning in public vocational and entrepreneurship training diverting from school set where pupils have to be equipped with digital

		technical education, vocational and entrepreneurship training (TEVET) institutions under the Ministry responsible for Vocational Education and Training in Zambia	literacy
6. Qazaq	2012	A study in Jordan by Qazaq (2012) investigated the degree of the readiness of academic staff towards the implementation of e-learning in universities in Jordan. The questionnaire was administered to 367 academic staff from the north, middle and the south of Jordan.	The study had gaps in pedagogical strategies, the study did not thoroughly investigate of institutional support, policies, technical support on the academic staff preparedness on e-learning. There was lack of comparative analysis with other countries on e-learning. However, the study was pure quantitative, qualitative approach was needed This study was more of the a pure quantitative was more universities than secondary schools, this study focused on schools hence the gap
7. Kisanga & Ireson	2015	In Tanzania, Kisanga & Ireson (2015) barriers and strategies on adoption of e-learning in Tanzanian higher learning institutions, data was gathered from a series of semi-structured interviews with e-learning experts from two Higher Learning Institutions in Tanzania. The findings revealed five (5) major barriers were identified towards adoption of e-learning in Tanzanian higher learning institutions, these were: Poor infrastructure; financial constraints; inadequate support; lack of e-learning knowledge and teachers' resistance to change.	This study focused more on the barriers especially in higher learning institutions than public schools which should be a starting point as far as e-learning is concerned.

Methodology

This study encapsulated a qualitative research methodology (Phiri *et al*, 2023) ^[42]. And the Philosophical paradigm underpinning the study was interpretive phenomenological study. According to Tuony (2013) phenomenology is a branch of philosophy used in qualitative enquiry and is also referred as hermeneutics meaning to describe, understand and interpret participants' experiences. This study addressed issues on the philosophies of Ontology and Epistemology. Ontology is the philosophical concept is concerned with the researcher's beliefs about the nature of reality or social phenomenon (Cohen *et al.*, 2011) ^[14]. This philosophical level is important for constructivists or for qualitative study. In this context, the study explored the reality or facts concerning the experiences of teachers and pupils on e-learning preparedness. This study used an exploratory design - a pure qualitative approach research design defined as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance with the research purpose (Kombo & Tromp, 2011). The approach used a pure qualitative approach on the experiences of teachers and pupils on e-learning preparedness in selected urban schools of Lusaka, Zambia. This research approach provides a detailed overview of the steps and procedures the researcher planned to execute in the collection and analysis of data as well as interpretation of research. Saunders, (2009) ^[48] further explained that research approach heavily involve on building on the three approaches- qualitative, quantitative as well as mixed

methods to theory development, if your research starts by collecting data to explore a phenomenon and you generate or build theory (often in the form of a conceptual framework), then you are using an inductive approach. This study involved a total sample size of 25 participants, 10 pupils, 9 teachers, 2 Head Teachers, 2, 2 specialists from the Curriculum Development Centre (CDC) giving the total of 25 participants. The researcher will use purposive sampling. According to Fisher (2005) in purposive sampling the researcher uses his or her own judgment to choose which people are going to be in the sample. This sampling method will be based on the judgment of the researcher regarding the characteristics of the reprehensive sample. The nature of this study involved purposive particularly convenient sampling. Cohen *et al* (2000) described purposive sampling as a sampling in which the researcher selects the sample based on a certain purpose. Data was collected using Interview Guide and Focus Group Discussion. Data was further analysed using thematic analysis where major themes were drawn and coded. Ethical Consideration Permission to conduct this research was sought and names of participants were withheld and confidentiality was assured to the participants.

The Findings of the Study

To explore the experiences of teachers and pupils on e-learning preparedness in selected urban schools of Lusaka, Zambia

Table 2

Themes	Sub- themes
1. Lack of preparedness	<ul style="list-style-type: none"> • Lack of time to prepare on the part of a school, a pupil and Teachers • Even during Pandemic in Decemeber,2023 January and February 2024 schools were not ready to open schools <ul style="list-style-type: none"> • Digital literacy among pupils and teachers • Internet connectivity is a huge challenge negatively affecting the preparedness in schools <ul style="list-style-type: none"> • Parental involvement- parents
2. Insufficient ICT infrastructure	<ul style="list-style-type: none"> • We do not have a building for ICT

	<ul style="list-style-type: none"> Lack of e-learning infrastructure affect pupil access to digital resources <ul style="list-style-type: none"> Schools in rural/remote location have challenges in access Financial constraints, schools lack funding in ICT buildings and equipment Schools may prioritize the buying of books, desks instead of building ICT infrastructure Lack of awareness – the situation where schools administrators and law makers do not fully understand the significance of ICT infrastructure for e-learning
3. Poor Connectivity/ Internet	<ul style="list-style-type: none"> Disparities of internet access or usage between urban and rural areas <ul style="list-style-type: none"> Technical issues- disrupt internet connectivity Schools may face issues of cyber security <ul style="list-style-type: none"> Lack of offline resources Limited access to internet Bundles are expensive
4. Lack of Trained ICT Teachers and corruption in the pedagogical process of ICT	<ul style="list-style-type: none"> Insufficient training for ICT teachers and corruption Lack of CPD-Continuous Professional Development in e-learning methodologies to bridge the gap of technologies. Refusal or resistance to new knowledge of e-learning methods and still sticking to traditional methods
5. E-learning is emphasized more in Universities than Schools	<ul style="list-style-type: none"> Universities have more ICT infrastructure than schools Universities offer more e-learning/ online courses unlike the school environment which is typically traditional Universities promote more research than schools in selected schools of Lusaka district
6. Load shedding	<ul style="list-style-type: none"> Affect the access on e-learning <ul style="list-style-type: none"> Loss of connectivity Lack of battery back up

One experience researchers have had is that one when we had a pandemic of COVID 19 it was so difficult for learners to learn. But e-learning is really good if we have prepared in time. Mmm...You know what Sir! Learners were not able to learn in schools because of COVID 19 Even last two months we had cholera outbreak, In this it appears schools are not so prepared when it comes to e-learning, from my experiences schools are taking a casual approach” (Teacher 1 from School A, 2024).

said 'Based on my personal experience, one of the primary challenges in preparing for e-learning implementation in Zambia is the digital divide. Many regions, especially rural areas, lack access to reliable internet connectivity and technological infrastructure and schools are not equipped with the 21st century e-learning' (Teacher 5, School A, 2024).

'I don't think our teachers are competent enough to teach e-learning at this school. Further, my generation to say doesn't usually see the benefits of e-learning. We see it as costly and non-interactive with pupils. We also lack acceptance or preparedness of technology and the worst of all we lack the knowledge how to use the electronic gadgets to access e learning.'(Secondary School Head Teacher 1, School B, 2024).

What we have observed includes the lack of proper access to the internet and suitable devices for attending online classes. For instance, some pupils cannot afford smartphones or laptops. Additionally, power cuts pose a significant obstacle as E-learning requires access to devices with strong batteries or uninterrupted power supply. Some laptops are desktops, meaning they only function when plugged into electricity, leading to missed meetings during power outages.” Grade 11 pupils FGD School B, 2024).

To establish the measures put in place on e-learning preparedness in selected schools of Lusaka.

On the views of Teachers, pupils and Head teachers on the measures put in place on e-learning preparedness in selected schools of Lusaka. The measures ensure quality education for all and promotes preparedness. The participants highlighted the following; Building of ICT infrastructure, training of Teachers for ICT teachers countrywide, Continuous Professional Development – CPD for all teachers on the usage of e-learning platforms, Digital platforms- choosing suitable e-learning platforms in schools, content development, Continuous Professional Development/ Continuous Improvement Ensuring pupil access and including offline access, Parental/ guardian involvement. Table 4.3 shows the themes and subthemes.

Table 3

Themes	Subthemes
1. Building of Infrastructure for ICT	<ul style="list-style-type: none"> Internet connectivity-back up plans, <ul style="list-style-type: none"> Network tools/ equipment Installing important educational software in line the curriculum or a syllabus <ul style="list-style-type: none"> Schools should have enough computers to cater for all pupils. <ul style="list-style-type: none"> Cyber security measures Digital/ technology literacy
2. Training of Teachers on e-	<ul style="list-style-type: none"> Workshops for all teachers

<p>learning/ICT</p>	<ul style="list-style-type: none"> • Proper use of 21st technologies • Technical skills like computer skills, operating systems, <ul style="list-style-type: none"> • Training on online/ e-learning assessments • Continuous Professional Development- CPD and ongoing training on e-learning • Training teachers and pupils to shoulder the responsibility on the use of technology
<p>3. Parental/ Guardian Involvement</p>	<ul style="list-style-type: none"> • Orientation and training or workshops with parents/guardians to familiarize them e-learning platforms done in schools • Parents/ guardians to support Pupils’ e-learning experiences at home and school • Provide technical assistance to their children in case of having trouble with the e-learning platforms • Parents/ guardians should be heavily involved in the learning activities of pupils
<p>4. Continuous Professional Development</p>	<ul style="list-style-type: none"> • Technology integration skills • E-learning teaching techniques • Feedback on the e-learning assessments <ul style="list-style-type: none"> • Communication skills • Cyber security awareness • Leadership and advocacy • Change management

In an interview with a Head teacher, he mentioned the strategy ‘Strategies on E-learning preparedness like I said earlier is around infrastructure assessment. So you evaluate the existing technological infrastructure to ensure it supports E-learning and assess factors such as the bandwidth for internet and device capabilities for technical issues. And I think more importantly the training for people in digital equipment on in E-learning itself to ensure that they’re comfortable with the platform and related tools that are required, while also developing policies that are ensuring that will set expectations for all the stakeholders including code of conduct and the technical requirement.’ (Head Teacher, School A, 2024)

In another face-to-face interview with another Head teacher he explained:

The ministry of Education should beef the number e-learning facilities, like ICT buildings, the government should increase the funding to procure e-learning facilities, introduction of cell phones which are restricted it to the educational platforms using, another strategy is to make ICT a compulsory subject from primary to secondary schools, also internet connectivity (Head Teacher, School B, 2024).

Views of Teachers

In a face- to face interview the teacher said

It’s essential to address technical issues, like connectivity problems and engagement barriers in e-learning. Strategies like building ICT infrastructure, clear instructions on the usage of e-learning platforms, alternative resources, interactive elements, and motivational techniques can enhance the effectiveness e-learning.’ (Teacher 1, School A, 2024).

“E-learning is very good we should not just be using is where there are pandemics like COVID19 and cholera, the government should train teachers on the usage of e-learning /ICT or where there are problems sometimes we should try using it during the holidays with our pupils have closed so that every pupil to get used with e-learning. Some people are not used to it so even if we try and use it even when there is no pandemic, I think everyone there will be able to know

it and use it for the betterment of the country.” (Teacher 2, School B, 2024).

I genuinely think the government needs to come to our aid in this matter. Investing in material for students in e-learning. Children are the future. So this matter isn’t one that should be taken lightly.” (Teacher 3, School A, 2024).

Schools through the Ministry of Education should strive to create deals with network providers for cheaper Internet access for students” (Teacher 4, School B 2024)

Adding to that, implementing regular assessments and feedback mechanisms is important for monitoring pupil progress and providing guidance on e-learning, Parents or guardians should be involved also. E-learning quizzes, assignments, and discussion participation can help keep pupils accountable and ensure they’re staying on track with their learning objectives. Also, timely feedback from instructors is invaluable for guiding students in the right direction (Teacher 5, School B, 2024).

The government can be funding schools at a fee which can be making it easier for pupils to buy data so that they can be able to access e-learning education. The government can provide free WIFI routers to schools in Zambia to enable them to learn virtually and access information through e-learning.”(Teacher 6, School A, 2024).

Implementing cyber security measures that protects pupil data and privacy, partnering with parents which ensures e-learning in a home environment, adapting lessons to multimedia (Teacher 7, School B, 2024).

“The platform itself needs to be accessible in order to help solve the problem. One of the key things that we see now in the industry is that these facilities must be used by individual with disabilities and therefore things like screen readers, caption videos and so on try to promote inclusivity of you know the people that have got challenges.” (Teacher 8, School A, 2024).

So I think primary and secondary schools must provide their learners with gadgets (zed pads) that they can use to access school docs in such cases. The same way schools buy computers to put in their IT labs maybe if they can instead buy these tablets that can only browse academic content they would be helping a lot of people. When such things are bought and assigned to learners especially the less fortunate ones, classes would turn out to be very effective and learners would be focused on only that lesson because these school tablets can only open educative browsers.” (Teacher 9, 2024).

Views of Curriculum Expert

‘In Zambia we should take e-learning as an urgent need, the strategies involve infrastructure development, curriculum alignment to suit the e-learning delivery, supportive policies like guidelines and policies on e-learning, assessments on e-learning, parent- pupil- teacher involvement, monitoring and evaluation on e-learning on the effectiveness on e-learning’ (Curriculum Expert, 2024). This is in agreement with Phiri (2022:517) observation on curriculum: “education policy reforms in Zambia are not linked to the next, in backward and forward loops, and the process as whole has no definite beginning or end”. This shows that the views of experts on curriculum are correct.

Views of Pupils

In a focus Group Discussion pupils had this to say on the strategies

I do suggest creating platforms for easy access. As well as having accessible fast internet for pupils. I think network providers can help too. They could create bundle packages to facilitate e-learning. And these bundles would only be for e-learning alone. The same way they offer social media packages on their own you know? Also the majority of the students here rely on their classmates who have access to gadgets. So remembering such pupils also would help and I think they could provide gadgets for use in e-learning. Like the zed-u-pad. It was a tablet. But a tablet created specifically for education purposes. So I think having these provided to such can help us as pupils” (FGD, School A, 2024).

On female said *‘They should introduce workshops on e-learning for teachers in all school so that they become more acquainted with e-learning.’ (Pupil 2, School A).*

Sir, mmmm... I think we need change of mind set as pupils and as a country and it depends on us, things are now changing our friends in our developed countries use e-learning, e-learning is very helpful especially during cholera and COVID 19 outbreaks. Our problem is our mindset are used to physical learning. Sir, we are behind in finishing the syllabus because of cholera from January to February (FGD, School B, 2024).

Discussion of Findings

Experiences of teachers and pupils on e-learning preparedness

Based on the study findings on teachers and pupils’ experiences e-learning preparedness in selected schools of Lusaka district they explained the bad experiences facilitating the challenges such as issues of connectivity-access to internet, few trained staff in ICT and e-learning platforms, lack of social justice and corruption in the learning process. A few pupils have handsets with internet connectivity. Also, the study showed that some teachers did not have a clear understanding of what e-learning was, which questions the quality of e-learning processes. The study further indicated that the schools are not very prepared for e-learning and had a lot challenges in incorporating e-learning in the schools especially during pandemic like COVID 19 and Cholera pandemic in March, 2024. Additionally, in agreement with Phiri (2022) ^[41], it appears incompetence by key actors in the education sector, or it may be due to inadequacies in infrastructure such as fewer classroom space for learners in eLearning. Further, in agreement with Phiri (2022) ^[41], lack of social justice in education is another factor that has contributed to eLearning challenges to learners in urban schools. Here, social justice is based on values around humanity and dignity of all people (Phiri, 2022:191) ^[41]. It is the embodied values of justice and equality (Phiri, 2022) ^[41] lacking in education affecting e-learning preparedness in urban secondary schools in Zambia.

This study is also in agreement with (Mweshi, 2022) findings in Lusaka indicated that the challenges are being experienced because of the varying degree of preparedness of the institutions, staff, and students. Transitioning was a challenge because some of the lecturers and students did not have any background/adequate training in ICT or knowledge on how to use the different platforms or tools associated with eLearning. It is worth noting that despite its popularity, the curricula being transited to create e- learning instructions have not been altered and their design is also the same as that used in face-to-face settings. Mere regurgitation of materials extracted from books and classroom courses is a major error of e-learning curricula design. Irrespective of the divide on which seasoned.

On the contrary, this study by (Mweshi, 2022) was more of the University students. Study findings are also contradicting the findings by Miyanda (2020) ^[38] who studied the effect of a web-based e-learning in Zambia for primary and secondary schools. The survey questionnaire was administered to pupils in urban and rural primary and secondary schools in Solwezi District. Data were analysed using descriptive statistics with the aid of the statistical package. The piloted data were analysed to calculate its reliability and special attention was given to relevance of survey questionnaire and clarity of instructions for this research. Results of the study showed that pupils have access to eLearning and their exposure to a great extent. The study revealed that majority of the respondents had mobile phones which had internet facility on them to access the on line lessons and had knowledge of the existence of a web-based e learning using phones and spent between thirty minutes to three hours per day.

Ministry of Education e-learning Policy- Education Contingency Plan (ECP) – 2022

The government through the Ministry of Education and its partners developed and have been implementing the Education Contingency Plan to respond and mitigate the impact to learn through printed learning packages, radio, television, e-learning using computers, phones and internet. However, the reality on the ground is that most of the pupils are from distant places especially in the rural areas. Further, the policy revealed that in Zambian schools, there is lack of trained ICT teachers, lack of electricity and load shedding of power by the Zambia electricity corporation (ZESCO). In agreement with Phiri, Musonda, Somba *et al.*, (2022) what the foregoing policy measures seem to omit is an all-important part of what drives e-learning process to corrupt behaviour anchored on socialization, norms, peer effects and beliefs about what others (i.e., simply, the pedagogical process in teaching learners) do in a situation susceptible to corruption. This confirms the challenges learners experience, as ITC learning process is mirrored with corrupt behaviour by teachers.

Measures on e-learning preparedness in selected schools of Lusaka

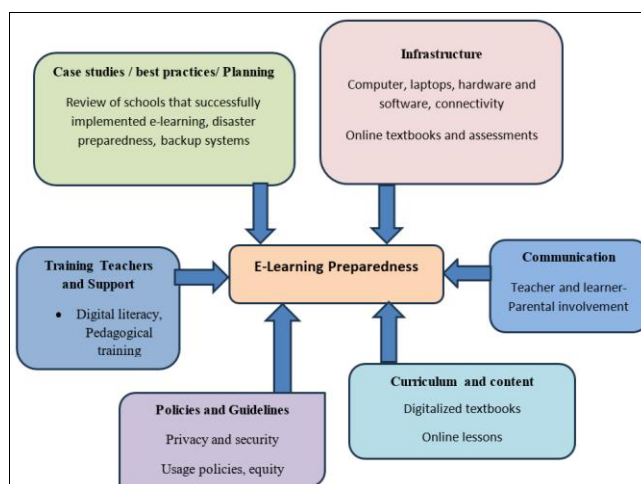
Based on the study findings, the On the views of Teachers, pupils and Head teachers on the measures put in place on e-learning preparedness in selected schools of Lusaka. The measures ensure quality education for all and promotes preparedness. The participants highlighted the following;

Building of ICT infrastructure, training of Teachers for ICT teachers countrywide, Continuous Professional Development – CPD for all teachers on the usage of e-learning platforms, Digital platforms- choosing suitable e-learning platforms in schools, content development, Continuous Professional Development/ Continuous Improvement Ensuring pupil access and including offline access, Parental/ guardian involvement.

This study is consistent with results in Bahrain by Taha (2014) [52] research who attempted to investigate the factors that influence the implementation and development of E-Learning and the most appropriate framework for secondary schools in their country. The results revealed that there are four sets of factors which influence the success of E-Learning in the schools These are: Students' characteristics (computers skills; motivation and attitudes); teachers' characteristics (attitudes; control of technology and pedagogy and teaching style); technology (quality of technology and effectiveness of infrastructure) and design and content (perceived ease of use and quality of content).

Constructed framework on e-learning preparedness - Fumbani e-learning Preparedness –FEP Framework.

This Framework ensures that all aspects are considered for successful implementation of the measures and sustainability of e-learning initiatives. Each component of the e-learning plays an important role in integrating and implementation on e-learning technologies on the preparedness in schools.



Source: Fumbani e-learning preparedness model

Fig 2

Conclusion

The article has also shown many e-learning challenges faced by pupils in the selected Lusaka urban secondary schools. Of concern is the lack of preparedness in offering e-learning programmes to pupils caused by various factors, namely lack of infrastructure, corruption, social justice in education as well as the lack of navigating strategies to enhance e-learning facilities. This observation is supported by Kalumba, Phiri *et al* (2023) [24] who argue that, often use of strategies such as building networks, seeking out mentors and sponsors, and developing their own expertise to overcome the challenges they face in schools are missing. The authors recommend to offer training and development. This infers that organizations should offer training and development opportunities that help staff build the skills and

knowledge needed to succeed in decision-making roles needed for e-learning purpose (Kalumba 2023) [24]. This can include leadership training, communication skills training, and technical training in areas related to their work and e-learning processes.

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