Factors that Parents in South Africa Consider in Support of their Children's Continuous Use of Online Learning

David Mutambara[*] iD
Department of Mathematics, Science and Technology Education
University of Zululand, KwaZulu-Natal, South Africa

Abstract. One of the lessons learnt during the COVID-19 pandemic is the need for technology to connect and communicate. Schools learnt to use technology as tools of teaching and learning, as well as connecting with parents. Such gains need not be discarded now that the pandemic has subsided. The purpose of this study was to investigate factors that parents in South Africa consider significant in allowing their children to continue using online learning. The extended expectation-confirmation model, with eight constructs, was used to explain this phenomenon using a sample of 358 participating parents. The model was analysed using partial least squares structural equation modeling, while SmartPLS3 was employed in the analysis of the data. The results showed that the factors that parents in South Africa consider significant in allowing their children to continue using online learning were statistically significant. The seven factors (constructs) identified in the model explained 74.6% of the variance in support of continuous use of online learning. This was an overwhelming support for continuance to use online learning by their children, based on its benefits. This work contributed to the body of knowledge by developing a model for predicting the continued use of educational technologies (online learning), especially in developing countries. One of the shortcomings of the study is that it only included parents of learners in one district of South Africa. As a result, generalising the findings to other high schools elsewhere should be done with caution.

Keywords: continuous use; online learning; parents; expectation-confirmation model; high schools

1. Introduction
Online learning (OL) is rapidly expanding in developed countries, providing new learning options for learners and parents. According to expert estimates, the number of high school learners in online courses exceeds one billion (Dong et al.,

---

[*] Corresponding author: *David Mutambara; mutambarad@unizulu.ac.za*

2020). Parents and learners choose online institutions and online courses for a variety of reasons stemming from their specific needs. There are a number of reasons why parents and their children prefer OL (Agaton & Cueto, 2021; Lau & Lee, 2021). For instance, parents and their children may be looking for subjects that are not available at their local schools (Watson et al., 2010). Another attraction is that learning can take place at the learner's own pace (Agaton et al., 2021). Learners with certain medical conditions may benefit from OL (Lau et al., 2021). Learners can gain access, through OL, to specialist teachers who are located far away, which they would not be able to do in the classroom (Maqableh & Alia, 2021). Parents believe that virtual laboratories (which may not be available in their locality) can be used to help their children better understand science concepts (Mutambara & Chibisa, 2022b; Watson et al., 2010). These reasons for choosing online institutions and OL has led to the proliferation of OL service providers (Watson et al., 2010).

The demand for OL further increased due to the global spread of COVID-19 which caused countries to implement national lockdowns (Wang et al., 2021). During these lockdowns, people completely depended on information and communication technologies for teaching and learning which, in developing countries especially, was relatively new (Mutambara & Bayaga, 2021b). This necessitated the engagement of all educational stakeholders, including the Department of Basic Education (DBE), learners, teachers, and parents.
The DBE spent a significant amount of money to fund OL (Mulenga & Marbán, 2020). For example, the DBE collaborated with cellular network providers to offer zero-rated educational learning platforms (Mulenga et al., 2020). Parents assisted by purchasing mobile gadgets to help their children's online study (Mutambara & Bayaga, 2020b; Xu & Jaggars, 2013). Teachers developed a large amount of subject-specific OL resources (Mutambara & Bayaga, 2020a).

Online learning has been found in studies to boost learners' interest and performance (Xu et al., 2013). With all these benefits and the investments made, it is critical that OL remains a component of teaching and learning post COVID-19. Online learning will only be a success in developed nations if learners and teachers continue to use it (Suzianti & Paramadini, 2021; Wang et al., 2021).

Several studies have been undertaken to better understand the factors that influence users' acceptance of OL and, as a result, its effective implementation (Maheshwari, 2021; Mutambara et al., 2021b). However, there has been a limited amount of research conducted on the post-acceptance of OL, specifically its continued use (Chandradasa & Galhena, 2021; Huang, 2021; Suzianti et al., 2021; Wang et al., 2021). Few studies have been undertaken to study the factors that learners (Chandradasa et al., 2021; Holmes, 2013; Huang, 2021; Wang et al., 2021) and teachers (Holmes, 2013; Suzianti et al., 2021) consider when deciding whether or not to continue using OL. However, the question remains as to whether the research studies included all of the stakeholders in high school education (Mutambara et al., 2020b).

When it comes to the continued use of OL, parents' perspectives have not received the consideration they deserve. However, the ability of parents to adapt and become accustomed to utilising technology is required and necessary for assisting the learning process of their children with the use of OL (Dong et al., 2020). This comes in the form of parents assisting with the purchasing of the required gadgets for their children or even practically helping with the actual homework on these gadgets, let alone giving the necessary support and supervision required by learners outside the school environment.

To fill this gap, this study sought to investigate the factors that parents in South Africa consider to be significant in allowing their children to continue using OL. These factors will help all stakeholders in education in decision making. Parents will also be informed of the critical factors on which they must concentrate to support their children in learning effectively.

2. Literature Review
2.1 The Impact of COVID-19
During the peak of the COVID-19, all non-essential services were suspended, including schools. This led the DBE to order schools to switch to OL in order to save the academic year. The shift to OL was carried out with little to no forethought (Mulenga et al., 2020), thereby causing a chaotic transition. In the midst of this chaos, the government suggested that, rather than adding new technologies (which was costly), teachers should expand educational opportunities by utilising the existing technologies (Ardington et al., 2021; Mulenga et al., 2020). The administration also claimed that mobile devices capable of supporting OL were available in most homes (Landa et al., 2021). In so doing, OL took the role of traditional education. This meant that parents were required to monitor their children's learning at home.

This changeover was fraught with difficulties (Landa et al., 2021; Mulenga et al., 2020; Mutambara & Bayaga, 2021a; Ramrathan, 2021). The majority of South African educators were not trained to use OL (Landa et al., 2021). Teachers were hesitant to teach online because they believed parents were watching them (Mulenga et al., 2020). Some parents were forced to purchase mobile gadgets that could facilitate OL (Mutambara et al., 2021a; Ramrathan, 2021). Parents also found it difficult to monitor and support their children as they were learning online (Landa et al., 2021). For learners, erratic internet connection and electricity supply interrupted their OL (Mutambara et al., 2021b). Despite these numerous hurdles, the DBE, teachers, learners, and parents persisted with OL.

Eventually, the virus infections came to a peak and then subsided and life could resume as it had been prior COVID-19. Schools had to open, allowing teachers and learners to return to face-to-face instruction. This risked the loss of all the gains of OL which did not sit well with parents and other stakeholders. Therefore, some parents and other stakeholders wished to explore and identify factors that would allow children to continue using OL.

2.2 Online Learning and Parents' Views

Online learning is defined as learning that occurs over the internet, either synchronously or asynchronously, in which learners conveniently interact with content, educators and other learners (Dong et al., 2020; Heba & Sultan, 2020). Online learning has grown significantly in recent years due to its better flexibility in terms of time, location, and pace of study (Huang, 2021). Furthermore, OL offers convenient and highly efficient access to a wider array of knowledge, while minimising expenses (Huang, 2021; Mutambara et al., 2022b). In developing countries, OL mitigates shortages of learning materials (Chibisa et al., 2021; Mutambara et al., 2022b). In some cases, it can be used to enhance learners' understanding of science concepts using computer simulations (Mutambara et al., 2021a). However, in emerging nations, accelerated development of OL was witnessed in institutes of higher learning, rather than schools (Chandradasa et al., 2021; Mutambara et al., 2021b).

As OL continues to expand rapidly, governments, educational institutions, and companies worldwide are increasingly advocating for its adoption, resulting in a shift away from traditional in-person classrooms (Huang, 2021; Mulenga et al., 2020). The advancement of communication technologies has enabled OL to create dynamic and authentic learning environments, fostering enhanced collaboration and interdependence among learners (Chandradasa et al., 2021; Lu et al., 2019).
In the context of OL, authenticity can be achieved through various means. For instance, Chandradasa et al. (2021) stated that online platforms can offer simulations, virtual environments, and interactive multimedia resources that simulate real-world scenarios. The immersive experiences provided enable students to apply their knowledge and skills within a secure and controlled environment, replicating real-life situations that they may encounter in their future professional endeavours (Lu et al., 2019). Lu et al. (2019) added that OL often involves the use of technology, tools and resources that are commonly utilised in professional contexts. Students can gain practical experience in using digital tools, software applications, and online collaboration platforms that are prevalent in today's workplace (Xu et al., 2013). By engaging with these technologies, students develop digital literacy skills and become familiar with the tools they will likely encounter in their professional lives (Zhu et al., 2020).

Despite the numerous benefits of OL, parents' views are polarised (Isikoglu Erdogan et al., 2019; Lu et al., 2019). Some parents have reservations about OL (Isikoglu Erdogan et al., 2019; Stites et al., 2021). For instance, some parents are concerned that OL may lead to social isolation and a lack of engagement, thus impacting their children's development (Lau et al., 2021). Some parents are also concerned that their children's excessive exposure to OL may expose them to inappropriate information (Stites et al., 2021). They are also concerned about cyberbullying (Isikoglu Erdogan et al., 2019), while others are anxious about the time that their children spend online, claiming that it can lead to physical health concerns (Heba et al., 2020). Some parents are concerned about the necessity to monitor their children's usage of these devices by putting parental care tools in place (Isikoglu Erdogan et al., 2019; Lau et al., 2021).

Conversely, certain parents have expressed support for their children's utilisation of technology and online learning (OL), recognising the potential for valuable technological skills' development and the enhancement of academic growth (Mascheroni et al., 2016). They believe that equipping children with computer proficiency will contribute to their future opportunities, including career prospects (Hatzigianni & Kalaitzidis, 2018; Kumpulainen & Gillen, 2017; Mascheroni et al., 2016). In the extremely diverse digital environment of the modern world, some parents believe that a variety of digital and online tools may provide additional knowledge and learning opportunities for their children (Hatzigianni et al., 2018). There is a belief among certain parents that digital technologies and OL can play a crucial role in fostering the development of children's learning competencies, language skills, self-expression, and social acceptance (Nouwen & Zaman, 2018). For most parents, the advantages of OL outweigh the disadvantages, resulting in its rapid growth.

2.3 Factors that Influence Parents to Allow Children to Continue Using Online Learning

Numerous studies have investigated parents' perspectives on OL (Kumar et al., 2010; Mutambara et al., 2020b; Özdamlı & Yıldız, 2014; Poçan et al., 2021). Özdamlı et al. (2014) focused on parents' views towards parent-school collaboration using mobile devices. Mutambara et al. (2020b) investigated factors that influence parents' pre-acceptance views of OL. The results revealed that parents' behavioural intention to allow their children to use OL was influenced by the perceived ease of use of OL, the perceived usefulness of OL, perceived attitude towards OL, and perceived resources needed for OL (Mutambara et al., 2020b). Kumar et al. (2010) emphasised that parents are concerned with the high cost involved in OL. Poçan et al. (2021) also noted that parents consider perceived ease of use, perceived performance impact, and perceived usefulness when allowing their children to use OL to learn mathematics. Parents consider teachers' support and preparedness when they allow their children to use OL (Eutsler, 2018). Parents' attitudes towards OL play a very important role in their acceptance of OL for their children (Mutambara et al., 2021a).

Thus far, the current authors have found no evidence that available research examined what factors impact parents' decisions to allow their children to continue OL. However, there have been few studies that have looked into learners' (Zhu et al., 2020) and teachers' (Holmes, 2013; Holmes & Sime, 2012)) continuous use of OL. According to the findings, some of the factors that influence teachers' pre-acceptance of OL also influence their continued use (Chandradasa et al., 2021; Zhu et al., 2020). According to the findings of these studies (Chandradasa et al., 2021; Holmes et al., 2012; Zhu et al., 2020), several of the factors that influence learners' pre-acceptance of OL also influence their post-acceptance. These results can be extrapolated towards the factors that influence parents' support of learners' continued use of OL.

According to some studies, the perceived usefulness of parents influences their behavioural intention to allow their children to use OL (Mutambara et al., 2021a). Parents' behavioural intentions were found to be influenced by cost and perceived

resources (Mutambara et al., 2020b). Another study by Agaton et al. (2021) found that performance impact and educator preparedness influence parents' willingness to allow their children to use OL. Teachers' and the DBE's support has a significant impact on parents' behavioural intentions to use OL (Heba et al., 2020).

3. Framework of the Study

The expectation-confirmation model (ECM) developed by Bhattacherjee (2001) was used to explain the factors that parents consider important when allowing their children to use OL. The ECM states that users' continuous use of an information system (in this case, OL) is influenced by their satisfaction and usefulness (Bhattacherjee, 2001). Satisfaction and usefulness are influenced by confirmation (Bhattacherjee, 2001). The ECM has been widely used in the context of educational technology to explain users' continued use of these technologies (Huang, 2021; Nugroho et al., 2019; Suzianti et al., 2021). Nugroho et al. (2019) noted that more educational-related variables or constructs should be added to ECM to improve its explanatory power. This study, like Alarabiat et al. (2021) and Chandradasa et al. (2021), extended the ECM with educational related constructs stated as: confirmed performance impact, confirmed costs, confirmed support, confirmed teachers' preparedness, attitude towards, and confirmed usability (CU). These added constructs, together with the ECM constructs, make up the conceptual framework of this study and are explained as follows.

3.1 Satisfaction (SFN)

Satisfaction refers to the cognitive and emotional state experienced by a user in response to a particular activity, such as OL, encompassing both physical and emotional reactions (Alarabiat et al., 2021). Users will be emotionally fulfilled if the outcomes fit their needs, expectations, task orientation, and goal determination (Holmes, 2013; Lu et al., 2019). User satisfaction is seen as a significant predictor of an information system success. The user's ongoing intention to use an information system is primarily influenced by their satisfaction with the system's usage (Suzianti et al., 2021). Huang (2021) stressed that the key determinant of continued intention is satisfaction gained after actual use of an educational technology. When the level of satisfaction is high, it results in a corresponding high level of continued use (Alarabiat et al., 2021; Xu et al., 2013). Satisfaction is usually regarded as a mediating factor of post-adoption factors and continuous use (Nugroho et al., 2019). If parents are satisfied with OL, they would want their children to continue using it. Therefore, the hypothesis for the construct satisfaction is:

H1: Parents' satisfaction influences their children's continuous use of OL.

3.2 Confirmed Usability (CU)

According to Lewis (2018), usability refers to the degree of effectiveness in which designated users can successfully accomplish predetermined objectives within a particular context. In this study, confirmed usability is defined as parents' confirmed belief that their children can use OL to learn. The amount to which a task goal is successfully attained (e.g., the proportion of users who are able to finish a particular task) is referred to as effectiveness (Lewis et al., 2015). This

study proposed that if parents have a confirmed belief that their children can learn using OL, they will be satisfied and have a positive attitude towards it. Therefore, the hypotheses of the construct confirmed usability are:

H6: Parents' confirmed usability influences their satisfaction with OL.
H8: Parents' confirmed usability influences their attitude towards OL.

3.3 Attitude Towards (AT)

In this study, the phrase "attitude towards" (AT) refers to parents' general affective reaction to the use of OL (Mutambara et al., 2021b). After permitting their children to use OL, parents' views regarding it develop. These attitudes may be favourable or negative (Alarabiat et al., 2021; Almahamid & Rub, 2011; Nouwen et al., 2018). If their expectations are met or surpassed, parents will have a positive attitude towards OL. Attitudes have been shown to influence satisfaction (Huang, 2021). If parents develop a positive attitude with OL, they will be satisfied with it. Therefore, the hypothesis for the construct attitude towards is.

H5: Parents' attitude towards influences their satisfaction with OL.

3.4 Confirmed Performance Impact (CPI)

In this study, parents' confirmed view that OL enhances their children's performance is defined as a confirmed performance impact. The goal of performance impact is to quantify one component of performance impact, which is parents' self-report on the perceived influence of OL on their children's performance (DeLone & McLean, 2016; El Said, 2015). Despite the fact that improving users' efficiency in executing activities involved in information systems is one of the key aims of an information system, the performance impact of an information system has seldom been examined, or even considered, in information system adoption models (Goodhue & Thompson, 1995). This study postulated that if parents have a confirmed performance impact, they will allow their children to continue to use OL and be satisfied with it. As a result, the construct "confirmed performance impact" hypotheses are as follows:

H4: Parents' confirmed performance impact influences their satisfaction with OL.
H2: Parents' confirmed performance impact influences their children's continuous use of OL.
H9: Parents' confirmed performance impact influences their attitude towards OL.

3.5 Confirmed Teachers' Preparedness (CTP)

The concept of teachers' preparedness encompasses the "state or situation of being prepared; readiness", emphasising the attitudinal element of being ready for something (Gill & Dalgarno, 2008, p. 12). Human factors (such as a lack of confidence in utilising OL, reluctance to change and unfavourable attitude towards OL, and lack of perceived benefits, in addition to a lack of time, resources, and training) were important and constant barriers to teachers' use of OL (Gill et al., 2008; Hero, 2020; Nasiri et al., 2014). According to studies, teachers' readiness influences their support (Hero, 2020) and attitude towards the OL (Nasiri et al., 2014). This study postulated that parents' perceptions of teachers' readiness to use OL will influence their confirmed support and attitude towards OL. As a result, the construct "confirmed teachers' preparedness" hypotheses are as follows:

H10: Parents' confirmed teachers' preparedness influences attitude towards OL.
H11: Parents' confirmed teachers' preparedness influences their confirmed support.

3.6 Confirmed Support (SUP)

Learner support is yet another indicator of the effectiveness of OL. Academic assistance, counselling and mentorship, tutoring, and technological assistance are examples of support services (Watson et al., 2010). Several of these tasks are handled by educators in some schools; however, other schools dedicate personnel for part or all of these services. In some schools, learners are directed to a support website, while in others, support is embedded into the course material and software (Watson et al., 2010; Yu et al., 2017). Most schools employ a combination of all of the above (Hossain et al., 2020; Mutambara et al., 2021a).

Learners and parents both require technical assistance with OL devices and, thus, it is critical that schools provide adequate technical support to alleviate the irritation caused by technology-based interruptions to learning (Mutambara et al., 2020b; Stites et al., 2021; Watson et al., 2010). Several studies have investigated support as part of perceived resources, not as a standalone construct, and they found that it influences users' attitude towards the use of an educational technology (Chibisa et al., 2021; Mutambara et al., 2020a; Mutambara et al., 2022b; Zhu et al., 2020). This study postulates that if schools can provide academic assistance, counselling and mentorship, tutoring, and technological assistance to learners, parents will have a positive attitude towards their children's OL.
H12: Parents' confirmed support influences their attitude towards children's OL.
H7: Parents' confirmed support influences their satisfaction with OL.

3.7 Confirmed Cost (CC)

There are fees associated with online schooling that parents must bear (Watson et al., 2010). Parents must purchase data bundles and equipment that can facilitate OL (Mutambara et al., 2021a; Nasiri et al., 2014). Several studies have found that OL expenses have a unfavourable effect on user attitudes (Mutambara et al., 2021b; Poçan et al., 2021). Huang (2021) observed that the cost of OL influences user satisfaction and continuous use. This study assumes that the expenses of OL have an impact on parents' continued use, satisfaction, and attitude towards use. As a result, the construct "confirmed cost" hypotheses are as follows.
H3: Parents' confirmed cost influences their children's continuous use of OL.
H13: Parents' confirmed cost influences their attitude towards use of OL.
H14: Parents' confirmed cost influences their satisfaction with OL.

The 14 hypotheses and seven constructs explained above make up the conceptual model shown in Figure 1. These seven constructs explain continuous use (CONT) of OL. Hence, CPT predicts SUP and they both predict AT. CC, CU, and CPI are antecedents of AT and SFN. CC, CPI, and SFN have a direct effect CONT.
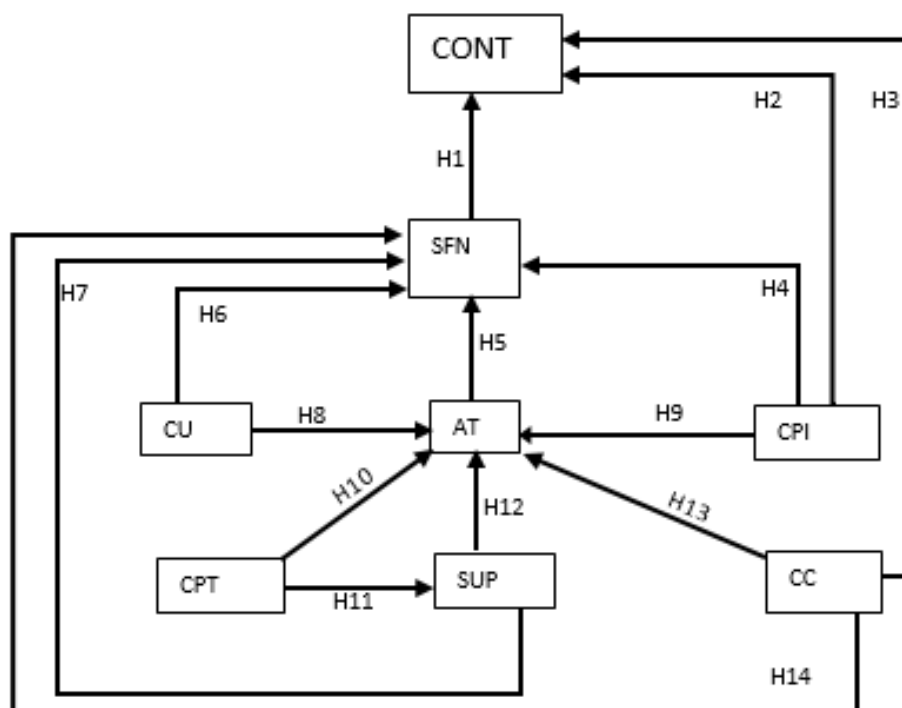
Figure 1: Conceptual model

4. Methodology

4.1 Research Design

Using a cross-sectional survey design, the research aimed to quantitatively capture the perspectives of a particular population by analysing a subset of individuals within that population (Creswell & Creswell, 2017). This design was utilised to obtain a quantitative description of parents' perspectives on their children's continuous utilisation of OL. The survey design enabled the collection of a substantial amount of data from parents within a short timeframe and at a reasonable cost. Additionally, it facilitated the acquisition of opinion-based data from parents through the use of a questionnaire. The proposed model was examined using partial least squares structural equation modeling (PLS-SEM) implemented with the assistance of SmartPLS3.

4.2 Participants

To gather data, the research employed stratified random sampling as described by (Creswell et al., 2017). In the study, all high schools within South Africa's King Cetshwayo District were categorised into quintiles based on their characteristics. Schools within the same quintile were grouped together to form strata. This stratification approach ensured that schools with similar characteristics were grouped together, reducing potential estimation errors (Creswell et al., 2017). A total of five strata were created as a result. From each stratum, one school was selected using simple random selection. Additionally, simple random sampling was employed to choose 550 students from the selected schools. Each of these students received a questionnaire for each of their parents, resulting in a sample size of 550 for the parents in the study.

Out of the initial 550 questionnaires distributed, a response rate of 71% was achieved, resulting in the collection of 390 completed questionnaires. However, only 92% (358 responses) of the collected questionnaires were considered suitable for inclusion in this study after undergoing data screening, while the remaining 8% were excluded. Regarding the demographics of the respondents, 35% resided in rural areas, 40% in semi-urban areas, and 25% in urban areas. In terms of gender distribution, 64% of the respondents identified as female, while 36% identified as male.

The constructs with the highest number of indicators were "continued use" and "confirmed support", each consisting of five indicators. In accordance with the guideline proposed by Hair et al. (2017), which suggested a minimum sample size of at least 10 times larger than the number of indicators in the construct with the most indicators, a sample size of 50 or more was recommended. The sample size of 358 participants in this study exceeds this recommended minimum by a significant margin.

4.3 Instrument Formation
The data collection process involved two main parts. Firstly, parents provided information regarding their demographic background. Secondly, respondents completed the essential section of the questionnaire, which encompassed scales designed to measure the constructs of the model. The questionnaire was adapted from previous research studies conducted by Huang (2021) and Mutambara et al. (2021a), and customised to suit the specific requirements of the present study. All items in the survey's questionnaire were directly framed within the context of OL. Respondents were asked to indicate their agreement level on a 7-point Likert-type scale, ranging from strongly disagree to strongly agree.

4.4 Data analysis
The collected data were analysed using partial least squares structural equation modeling (PLS-SEM), with the assistance of SmartPLS3. The analysis process involved two main stages. First, the measurement model was evaluated. This step focused on examining the reliability and validity of the measurement scales used in the study (Hair et al., 2017). The measurement model assessed the relationships between the observed variables and their corresponding latent constructs, ensuring that the indicators accurately measured the underlying constructs (Hair Jr et al., 2016). Second, the structural model was assessed. This step aimed to investigate the relationships and effects among the latent constructs in the proposed theoretical model (Hair Jr et al., 2017). The structural model analysis examined the direction, significance, and strength of the relationships between different constructs, providing insights into the hypothesised relationships and their statistical significance (Hair et al., 2017).

By conducting both the measurement model evaluation and the structural model assessment, the analysis provided a comprehensive understanding of the relationships among the constructs and their overall fit to the collected data.

5. Results

5.1 Measurement Model

To assess convergent validity, the extracted values of internal consistency, item reliability, and average variance extracted values (AVE) are used (Hair Jr et al., 2016; Hair Jr et al., 2017). In this investigation, most of the outer loadings in Figure 2 were greater than the recommended cut-off value of 0.7. The only construct with outer loading below 0.7 was cu1 (0.649). This construct was not removed from the model because of its contribution to content reliability. These findings suggested that item reliability was adequate (Hair Jr, Hult, Ringle, & Sarstedt, 2021). The composite reliability (CR) threshold value is 0.7 (Hair et al., 2017; Hair et al., 2021). According to the data in Table 1, all the CR values were greater than the threshold value of 0.7, suggesting adequate internal consistency. The cut-off value of the average variance extracted (AVE) is 0.5 (Hair et al., 2017). The results in Table 1 show that all the AVE values were greater than 0.5. Acceptable item reliability, AVE, and internal consistency all confirmed convergent validity (Hair Jr et al., 2016).

Table 1: Measurement model

Construct	AT	CC	CONT	CPI	CPT	CU	SFN	SUP
AVE	0.739	0.733	0.791	0.685	0.704	0.588	0.803	0.781
CR	0.919	0.916	0.949	0.897	0.905	0.850	0.942	0.947

To assess discriminant validity, the Fornell-Larcker criterion was used (Hair Jr et al., 2016). According to Hair et al. (2017), in order to assess discriminant validity, the square root of the AVE for each latent variable should be greater than its highest correlation with any other latent variable. The findings demonstrated that each construct in the model assesses different factors that parents in South Africa consider significant in allowing their children to continue using OL.

Table 2: Fornell-Larcker criterion

	AT	CC	CONT	CPI	CPT	CU	SFN	SUP
AT	**0.860**							
CC	0.830	**0.856**						
CONT	0.651	0.733	**0.889**					
CPI	0.596	0.693	0.775	**0.888**				
CPT	0.652	0.650	0.713	0.825	**0.890**			
CU	0.489	0.542	0.562	0.598	0.504	**0.767**		
SFN	0.599	0.728	0.828	0.779	0.685	0.611	**0.896**	
SUP	0.750	0.637	0.514	0.664	0.735	0.502	0.715	**0.884**

5.2 Structural Model

Once the validity of the measurement model was established, the structural model was evaluated following a four-step process proposed by Hair Jr et al. (2016). As outlined by Hair Jr et al. (2016), this process involves analysing collinearity in the structural model, assessing the significance and relevance of path coefficients, evaluating the model's explanatory power, and finally, examining its predictive power. This four-step evaluation framework was applied in the current study.

To test for collinearity in the measurement model, variance inflation factor (VIF) values were computed, as suggested by Hair Jr et al. (2017). Table 3 displays the VIF values; all of them were found to be below four, indicating the absence of collinearity issues within the model (Hair Jr et al., 2017).

Next, the significance of the path coefficients was evaluated using the bootstrapping method with 5000 subsamples. Table 3 presents the results, revealing that three out of the 14 examined hypotheses were rejected, while 11 hypotheses were accepted. Hypotheses were rejected based on p-values greater than 0.05 and t-values less than 1.96, adhering to the established criteria (Hair Jr et al., 2017).

Table 3: Structural model

Path	Std Beta	t-values	p-values	Decision	f^2	VIF
AT to SFN	0.334	3.002	0.003	Accepted	0.097	3.542
CC to AT	0.652	7.028	0.000	Accepted	0.894	2.226
CC to CONT	0.207	3.093	0.002	Accepted	0.730	2.327
CC to SFN	0.463	5.071	0.000	Accepted	0.203	3.173
CPI to AT	-0.269	1.124	0.262	Rejected	0.068	3.966
CPI to CONT	0.264	3.239	0.001	Accepted	0.099	2.781
CPI to SFN	0.314	3.870	0.000	Accepted	0.149	2.617
CPT to AT	0.177	0.660	0.510	Rejected	0.030	3.952
CPT to SUP	0.735	16.347	0.000	Accepted	1.173	1.000
CU to AT	0.021	0.511	0.609	Rejected	0.001	1.683
CU to SFN	0.138	2.202	0.028	Accepted	0.046	1.658
SFN to CONT	0.471	5.125	0.000	Accepted	0.283	3.082
SUP to AT	0.373	3.100	0.002	Accepted	0.264	2.462
SUP to SFN	0.393	4.077	0.000	Accepted	0.214	2.851

The coefficient of determination (R^2) and effect size (f^2) values are used to evaluate the model's explanatory power (Hair Jr et al., 2021). Hair Jr et al. (2021) demonstrate that R^2 values of 0.19, 0.33, and 0.67, respectively, imply a weak, moderate, and substantial level of accuracy (Hair Jr et al., 2021). According to Hair Jr et al. (2021), f^2 values of 0.02, 0.15, and 0.35 correspond to effect sizes of small, medium, and large, respectively. The R^2 values of SUP (0.540) is considered moderate, while the R^2 values of AT (0.786), SFN (0.747), and CONT (0.746) are considered a substantial level of accuracy.

The effect sizes were minimal for the routes AT to SFN (0.097), CPI to AT (0.068), CPT to AT (0.030), CPI to SFN (0.149), CPI to CONT (0.099), CU to SFN (0.046), and CU to AT (0.001). SFN to CONT (0.283), SUP to AT (0.264), SUP to SFN (0.214), and CC to SFN (0.203) had medium impact sizes. The routes with the largest effect sizes were CC to AT (0.894), CC to CONT (0.730), and CPT to SUP (1.173), indicating that removing the predictor from the model had a significant influence on the R^2 value of its endogenous variable.
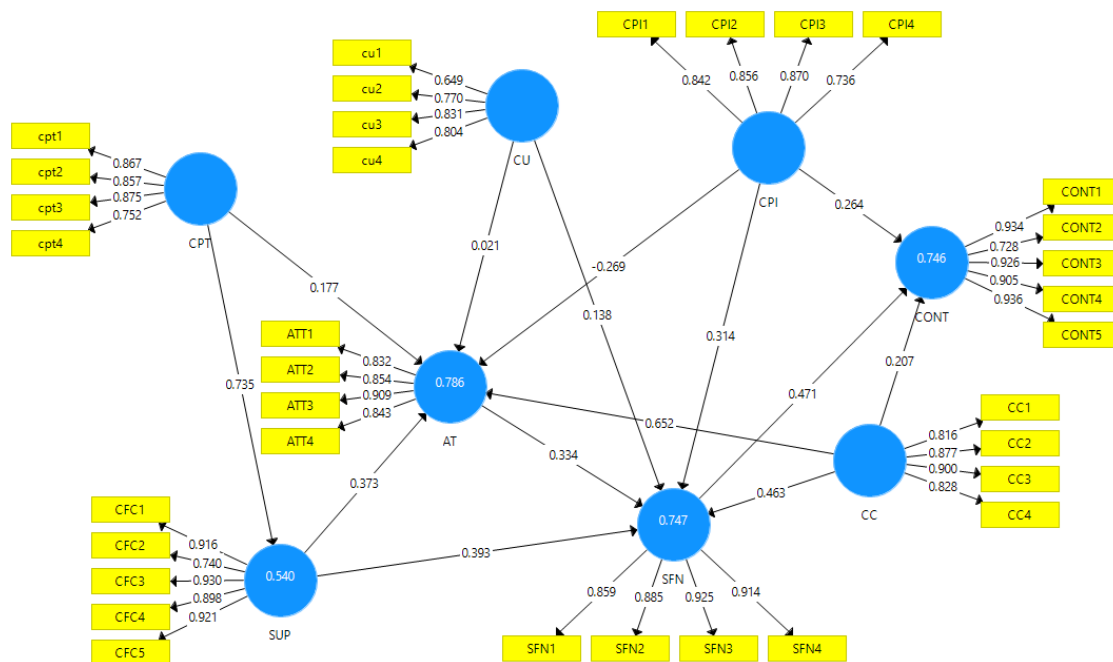
Figure 2: Structural model

The predictive power of the model was assessed using the Stone-Q-squared Geisser's statistic. By running the blindfold procedure, the results show that endogenous variables AT, CONT, SFN, and SUP have Q^2 values of 0.562, 0.580, 0.582, and 0.417, respectively. All Q^2 values in the model were found to be greater than zero, indicating that the model had satisfactory predictive significance (Hair Jr et al., 2017). This implies that the predictors CPT, SFN, SUP, AT, CPI, CC, and CU are among the factors that motivate parents of children in South Africa to continue utilising OL.

6. Discussion

The aim of this study was to investigate the factors that parents in South Africa consider significant in allowing their children to continue using OL. This was accomplished by incorporating context-related constructs into the expectation-confirmation model, as proposed by Foroughi et al. (2019). The model explained 74.6% of the variance in the continuous use of OL by parents in South Africa in allowing their children to continue using OL. All the Q^2 values were greater than zero. This means that the constructs of confirmed cost, confirmed support, confirmed teachers' preparedness, confirmed performance impact, attitude towards, confirmed usability, and satisfaction are good predictors of parents in South Africa in allowing their children to continue using OL.

The results revealed that confirmed teachers' preparedness influence parents' confirmed support but not their attitude towards the use of OL. These studies contradict the findings of Nasiri et al. (2014), who reported that teachers' preparedness influence parents' attitude towards the use of OL. This result is not surprising, since most parents in South Africa are not well educated and they do not know what their children are learning (Nasiri et al. (2014). The results are also in line with the findings of Hero (2020), who stated that teachers' confirmed preparedness influences parents' confirmed support. The results imply that

teachers should be well prepared to provide adequate technical support to both parents and learners to alleviate the irritation caused by technology-based interruptions to learning.

Congruent to the findings of Stites et al. (2021) and Watson et al. (2010), parents' confirmed support influence their confirmed attitude towards use and satisfaction. These results imply that parents' overall views on allowing their children to continue to use OL is influenced by the academic assistance, counselling, and mentorship, tutoring, and technological assistance that they and their children receive from the school. It is important for schools to continue to support parents and learners for continuance of OL.

Parents' satisfaction was influenced by their attitude towards use. This outcome is consistent with previous research findings (Alarabiat et al., 2021; Almahamid et al., 2011; Huang, 2021), which found that after enabling their children to use OL, parents acquired a good attitude towards it, which influenced their satisfaction. This positive attitude towards OL is reinforced by the assistance they received from teachers, the good impact of OL on their children's performance, and teachers' preparedness.

Contrary to the findings of Lewis (2018), the findings of this study demonstrated that parents' confirmed usability influences their satisfaction rather than their attitudes. Given that OL has been in use for some time and that studies demonstrated that it is effective and increases learners' performance (Mutambara & Chibisa, 2022c), one would expect its effectiveness to favourably affect parents' attitude towards it. The ability of OL to enable learners to learn and improve their performance influences parents' satisfaction with it.

Confirmed performance impact had a considerable influence on satisfaction and continued use but had no effect on attitude towards. This finding is congruent with the findings of DeLone et al. (2016), who reported that when choosing an OL platform, parents are mainly concerned with their children's performance. These findings show that parents are satisfied with OL and they will continue to allow their children to use it because of its potential to increase learners' performance. The findings also revealed that confirmed costs have a beneficial impact on attitude, satisfaction, and continued use. These findings are consistent with previous studies (Huang, 2021; Mutambara & Chibisa, 2022a; Poçan et al., 2021). One possible explanation for these findings is that learners may already have had devices that could support OL and, thus, they did not need to invest in new gadgets. Furthermore, the DBE collaborated with cellular network carriers to offer zero-rated educational websites. This lowered the overall cost of OL. It is this cost saving that persuade parents to allow their children to continue using OL.

Congruent to the common belief in the body of knowledge (Alarabiat et al., 2021; Suzianti et al., 2021; Xu et al., 2013), our results showed that parents' satisfaction strongly correlates with their continued use. Information system users' continued intention is primarily determined by satisfaction with the usage of that information system (Suzianti et al., 2021). Huang (2021) stressed that the key

determinant of continued intention is satisfaction gained after actual use of educational technologies. Increased satisfaction levels are associated with higher levels of continuous use (Alarabiat et al., 2021; Xu et al., 2013). The results also revealed that satisfaction plays a very important mediating role between continued use and confirmed support, confirmed teachers' preparedness, and confirmed support. It is very important for parents to be satisfied with OL for them to continue supporting their children in using the technology.

7. Theoretical Implications

The present study adds to the existing literature in four ways. First, the study presents empirical evidence that, despite being designed two decades ago (Bhattacherjee, 2001), the expectation-confirmation model may still be utilised to predict users' continued use of technology.

Second, the findings validated the recommendation of Nugroho et al. (2019) that the ECM be expanded by including context-related antecedents to explain the continued use of technology in a different setting. According to the findings of this study, confirmed cost influence satisfaction, continued use, and attitude towards use. Confirmed performance impact influences parents' satisfaction and continued use. Confirmed teachers' preparedness predicts confirmed support, which influences attitude towards use and satisfaction.

Third, by developing a model for predicting the continued use of educational technologies, this work contributes to the body of knowledge. This may be advantageous to developing countries' continued use of educational technologies. This is significant because most of the educational technology research has been conducted in developed countries to date.

Fourth, the study's findings revealed that satisfaction was the strongest direct predictor of continued use. This suggests that for users to continue utilising educational technology, they must be content with them. More factors influencing user satisfaction with educational technologies should be identified.

8. Practical Contributions

This study and its findings have several practical ramifications. Parents' confirmed support influences their confirmed attitude towards use and satisfaction. It is critical for schools to continue to help parents and learners for OL to continue to be used. When implementing OL, schools in South Africa should employ OL dedicated technicians to assist parents and learners.

According to the findings of this study, parents' satisfaction is the best predictor of their continuous use. The findings also demonstrated that satisfaction plays a critical role in mediating the relationship between continuous use and confirmed usability, confirmed teachers' preparedness, and confirmed support. It is critical to increase parents' satisfaction with OL for it to be used on a consistent basis. This can be accomplished by providing technical and psychological assistance to parents and learners. This can be achieved by hiring technicians to assist with technological challenges.

Our results revealed that confirmed cost has a positive impact on attitude towards, satisfaction, and continuous use. The DBE should assist learners by providing them with devices that are suitable for OL and data bundles. Schools can also use offline portals, where students can only connect to the school's Wi-Fi once a week to get their learning materials. This reduces the amount of data required to support OL and, as a result, the associated costs.

9. Limitations and Future Studies
The study's shortcomings include the fact that it only included parents of high school learners in one district. As a result, generalising the study's findings to all high schools in South Africa should be done with caution. Additionally, this study relied on self-reported data, which introduces the possibility of response bias and social desirability bias. Participants may not always provide accurate or truthful information about their attitudes, behaviours, or experiences, leading to potential errors in the results.

Future studies could consider employing additional measures or alternative data collection methods to mitigate these potential biases and enhance the robustness of the findings. Future research may replicate and compare the findings of this study in other developing countries. More research is needed to identify the factors that influence the continuous use of educational technologies, particularly in developing nations. Researchers may also investigate what aspects influence parents' satisfaction with educational technologies. This will increase the usage of educational technology in the long run, as user satisfaction is the best single predictor of continuous use.

10. Conclusion
The aim of this study was to investigate the factors that parents in South Africa consider significant when allowing their children to continue using OL. Confirmed cost, confirmed teachers' preparedness, attitude towards, confirmed usability, and confirmed performance impact were used to extend the ECM in this study. The results revealed that all the added variables are good antecedents of the ECM. The ECM factors, plus the additional variables, explained 74.6% of the variance in the continuous use of OL by parents in South Africa in allowing their children to continue using OL. The results also revealed that confirmed performance impact, satisfaction, and confirmed support had direct effects on parents in South Africa in allowing their children to continue using OL.

Attitude towards, confirmed teachers' preparedness, confirmed usability and confirmed support are prognosticators of satisfaction. Confirmed costs and confirmed support influence attitude towards the use of OL. Confirmed teachers' preparedness influences their confirmed support. The high explanatory power of the developed model in this study was evidence that the identified factors are good factors that parents in South Africa consider when allowing their children to continue using OL.

11. References

Agaton, C. B., & Cueto, L. J. (2021). Learning at Home: Parents' Lived Experiences on Distance Learning during COVID-19 Pandemic in the Philippines. *International Journal of Evaluation and Research in Education*, *10*(3), 901–911. https://doi.org/10.11591/ijere.v10i3.21136

Alarabiat, A., Hujran, O., Soares, D., & Tarhini, A. (2021). Examining students' continuous use of online learning in the post-Covid-19 era: an application of the process virtualization theory. *Information Technology & People*. https://doi.org/10.1108/itp-02-2021-0142

Almahamid, S., & Rub, F. A. (2011). *Factors that determine continuance intention to use e-learning system: an empirical investigation.* Paper presented at the International conference on telecommunication technology and applications Proc. of CSIT. https://doi.org/10.5220/0005748102150222

Ardington, C., Wills, G., & Kotze, J. (2021). COVID-19 learning losses: Early grade reading in South Africa. *International Journal of Educational Development*, *86*, 102480. https://doi.org/10.1016/j.ijedudev.2021.102480

Bhattacherjee, A. (2001). Understanding information systems continuance: an expectation-confirmation model. *MIS quarterly*, 351–370. https://doi.org/10.2307/3250921

Chandradasa, A., & Galhena, B. (2021). *University students' intention of continuous use of Zoom for eLearning*. https://doi.org/10.4038/jmm.v9i1.31

Chibisa, A., Tshabalala, M. G., & Maphalala, M. C. (2021). Pre-Service Teachers' Computer Self-Efficacy and the Use of Computers. *International Journal of Learning, Teaching and Educational Research*, *20*(11). https://doi.org/10.26803/ijlter.20.11.18

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage publications. https://doi.org/10.7748/nr.12.1.82.s2

DeLone, W. H., & McLean, E. R. (2016). Information systems success measurement. *Foundations and Trends® in Information Systems*, *2*(1), 1–116. https://doi.org/10.1561/2900000005

Dong, C., Cao, S., & Li, H. (2020). Young children's online learning during COVID-19 pandemic: Chinese parents' beliefs and attitudes. *Children and youth services review*, *118*, 105440. https://doi.org/10.1016/j.childyouth.2020.105440

El Said, G. R. (2015). Understanding Knowledge Management System antecedents of performance impact: Extending the Task-technology Fit Model with intention to share knowledge construct. *Future Business Journal*, *1*(1-2), 75–87. https://doi.org/10.1016/j.fbj.2015.11.003

Eutsler, L. (2018). Parents' mobile technology adoption influences on elementary children's use. *The International Journal of Information and Learning Technology*. https://doi.org/10.1108/ijilt-05-2017-0035

Foroughi, B., Iranmanesh, M., & Hyun, S. S. (2019). Understanding the determinants of mobile banking continuance usage intention. *Journal of Enterprise Information Management*. https://doi.org/10.1108/jeim-10-2018-0237

Gill, L., & Dalgarno, B. (2008). Influences on pre-service teachers' preparedness to use ICTs in the classroom. *Hello! Where are you in the landscape of educational technology*. https://doi.org/10.14221/ajte.2015v40n1.3

Goodhue, D. L., & Thompson, R. L. (1995). Task-technology fit and individual performance. *MIS quarterly*, 213-236. https://doi.org/10.2307/249689

Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*. https://doi.org/10.1108/imds-04-2016-0130

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications. https://doi.org/10.54055/ejtr.v6i2.134

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications. https://doi.org/10.54055/ejtr.v6i2.134

Hair Jr, J. F., Sarstedt, M., Ringle, C. M., & Gudergan, S. P. (2017). *Advanced issues in partial least squares structural equation modeling.* Sage publications. https://doi.org/10.1007/978-3-319-05542-8_15-1

Hatzigianni, M., & Kalaitzidis, I. (2018). Early childhood educators' attitudes and beliefs around the use of touchscreen technologies by children under three years of age. *British Journal of Educational Technology*, *49*(5), 883–895. https://doi.org/10.1111/bjet.12649

Heba, C., & Sultan, S. (2020). *Parents' Views of their children's online learning in the UAE context during the COVID-19 pandemic*. https://doi.org/10.36348/jaep.2020.v04i10.004

Hero, J. L. (2020). Teachers' Preparedness and acceptance of information and communications technology (ICT) integration and its effect on their ICT integration practices. *Puissant*, *1*, 59-76. https://doi.org/10.3402/rlt.v15i1.10912

Holmes, B. (2013). School teachers' continuous professional development in an online learning community: Lessons from a case study of an eTwinning learning event . *European Journal of Education*, *48*(1), 97-112. https://doi.org/10.1111/ejed.12015

Holmes, B., & Sime, J. (2012). *Online learning communities for teachers' continuous professional development: case study of an eTwinning learning event.* Paper presented at the Proceedings of the 8th International Conference on Networked Learning. https://doi.org/10.1007/978-3-319-01940-6_10

Hossain, M. N., Talukder, M. S., Khayer, A., & Bao, Y. (2020). Investigating the factors driving adult learners' continuous intention to use M-learning application: a fuzzy-set analysis. *Journal of Research in Innovative Teaching & Learning*. https://doi.org/10.1108/jrit-09-2019-0071

Huang, C.-H. (2021). Exploring the continuous usage intention of online learning platforms from the perspective of social capital. *Information*, *12*(4), 141. https://doi.org/10.3390/info12040141

Isikoglu Erdogan, N., Johnson, J. E., Dong, P. I., & Qiu, Z. (2019). Do parents prefer digital play? Examination of parental preferences and beliefs in four nations. *Early Childhood Education Journal*, *47*(2), 131-142. https://doi.org/10.1007/s10643-018-0901-2

Kumar, A., Tewari, A., Shroff, G., Chittamuru, D., Kam, M., & Canny, J. (2010). *An exploratory study of unsupervised mobile learning in rural India.* Paper presented at the Proceedings of the SIGCHI Conference on Human Factors in Computing Systems. https://doi.org/10.1145/1753326.1753435

Kumpulainen, K., & Gillen, J. (2017). *Young children's digital literacy practices in the home: A review of the literature*. Cost Action ISI1410 DigiLitEY. https://doi.org/10.4324/9780203730638-7

Landa, N., Zhou, S., & Marongwe, N. (2021). Education in emergencies: Lessons from COVID-19 in South Africa. *International Review of Education*, *67*(1), 167-183. https://doi.org/10.1007/s11159-021-09903-z

Lau, E. Y. H., & Lee, K. (2021). Parents' views on young children's distance learning and screen time during COVID-19 class suspension in Hong Kong. *Early Education and Development*, *32*(6), 863-880. https://doi.org/10.1080/10409289.2020.1843925

Lewis, J. R. (2018). Measuring perceived usability: The CSUQ, SUS, and UMUX. *International Journal of Human–Computer Interaction*, *34*(12), 1148-1156.

Lewis, J. R., Utesch, B. S., & Maher, D. E. (2015). Measuring perceived usability: The SUS, UMUX-LITE, and AltUsability. *International Journal of Human-Computer Interaction*, *31*(8), 496-505. https://doi.org/10.1080/10447318.2017.1418805

Lu, Y., Wang, B., & Lu, Y. (2019). Understanding key drivers of MOOC satisfaction and continuance intention to use. *Journal of Electronic Commerce Research*, *20*(2). https://doi.org/10.4067/s0718-18762019000300103

Maheshwari, G. (2021). Factors affecting students' intentions to undertake online learning: An empirical study in Vietnam. *Education and information technologies*, 1-21. https://doi.org/10.1007/s10639-021-10465-8

Maqableh, M., & Alia, M. (2021). Evaluation online learning of undergraduate students under lockdown amidst COVID-19 Pandemic: The online learning experience and students' satisfaction. *Children and youth services review*, *128*, 106160. https://doi.org/10.1016/j.childyouth.2021.106160

Mascheroni, G., Livingstone, S., Dreier, M., & Chaudron, S. (2016). Learning versus play or learning through play? How parents'imaginaries, discourses and practices around ICTs shape children's (digital) literacy practices. *Media Education*, *7*(2), 242-261.

Mulenga, E. M., & Marbán, J. M. (2020). Is COVID-19 the Gateway for Digital Learning in Mathematics Education? *Contemporary Educational Technology*, *12*(2), ep269. https://doi.org/10.1177/2042753016677858

Mutambara, D., & Bayaga, A. (2020a). Predicting rural stem teachers' acceptance of mobile learning in the fourth industrial revolution. *Journal of Construction Project Management and Innovation*, *10*(2), 14-29. https://doi.org/10.36615/jcpmi.v10i2.404

Mutambara, D., & Bayaga, A. (2020b). Understanding rural parents' behavioral intention to allow their children to use mobile learning. *Responsible Design, Implementation and Use of Information and Communication Technology*, *12066*, 520. https://doi.org/10.1007/978-3-030-44999-5_43

Mutambara, D., & Bayaga, A. (2021a). Determinants of mobile learning acceptance for STEM education in rural areas. *Computers & Education*, *160*, 104010. https://doi.org/10.1016/j.compedu.2020.104010

Mutambara, D., & Bayaga, A. (2021b). Learners' and teachers' acceptance of mobile learning: An exploratory study in a developing country. *International Journal of Learning Technology*, *16*(2), 90-108. https://doi.org/10.1504/ijlt.2021.117763

Mutambara, D., & Chibisa, A. (2022a). Analysing the Determinants of learners' continuous use of mobile learning during and after the Covid-19 pandemic. *Journal of Educational Studies*, *21*(2), 126-146. https://doi.org/10.26803/ijlter.21.3.1

Mutambara, D., & Chibisa, A. (2022b). Rural STEM Preservice Teachers' Acceptance of Virtual Learning. *International Journal of Learning, Teaching and Educational Research*, *21*(2). https://doi.org/10.26803/ijlter.21.2.9

Mutambara, D., & Chibisa, A. (2022c). Rural STEM Preservice Teachers' Acceptance of Virtual Learning. *International Journal of Learning, Teaching and Educational Research*, *21*(2), 155-175. https://doi.org/10.26803/ijlter.21.2.9

Nasiri, F., Ghanbari, S., Ardalan, M., & Karimi, I. (2014). Effect of infrastructure and faculty readiness in effective implementation of e-learning based on technology acceptance model (TAM). *Education Strategies in Medical Sciences*, *7*(5), 329-328. https://doi.org/10.1080/10963758.2023.2188217

Nouwen, M., & Zaman, B. (2018). Redefining the role of parents in young children's online interactions. A value-sensitive design case study. *International Journal of Child-Computer Interaction*, *18*, 22-26. https://doi.org/10.1016/j.ijcci.2018.06.001

Nugroho, M. A., Setyorini, D., & Novitasari, B. T. (2019). The role of satisfaction on perceived value and e-learning usage continuity relationship. *Procedia Computer Science*, *161*, 82–89. https://doi.org/10.1016/j.procs.2019.11.102

Özdamlı, F., & Yıldız, E. P. (2014). Parents' views towards improve parent-school collaboration with mobile technologies. *Procedia-Social and Behavioral Sciences*, *131*, 361–366. https://doi.org/10.1016/j.sbspro.2014.04.130

Poçan, S., Altay, B., & Yaşaroğlu, C. (2021). Parents' Opinions on the Use of Mobile Technology in Teaching Mathematics. *Inonu University Journal of the Faculty of Education (INUJFE)*, *22*(1). https://doi.org/10.1007/s10639-022-11166-6

Ramrathan, L. (2021). School curriculum in South Africa in the Covid-19 context: An opportunity for education for relevance. *Prospects*, *51*(1), 383–392. https://doi.org/10.1007/s11125-020-09490-1

Stites, M. L., Sonneschein, S., & Galczyk, S. H. (2021). Preschool parents' views of distance learning during COVID-19. *Early Education and Development*, *32*(7), 923–939. https://doi.org/10.1080/10409289.2021.1930936

Suzianti, A., & Paramadini, S. A. (2021). Continuance intention of e-learning: The condition and its connection with open innovation. *Journal of Open Innovation: Technology, Market, and Complexity*, *7*(1), 97. https://doi.org/10.3390/joitmc7010097

Wang, T., Lin, C.-L., & Su, Y.-S. (2021). Continuance intention of university students and online learning during the COVID-19 pandemic: A modified expectation confirmation model perspective. *Sustainability*, *13*(8), 4586. https://doi.org/10.3390/su13084586

Watson, J., Gemin, B., & Coffey, M. (2010). A Parent's Guide to Choosing the Right Online Program. Promising Practices in Online Learning. *International Association for K-12 Online Learning*. https://doi.org/10.4324/9781315721316-10

Xu, D., & Jaggars, S. S. (2013). The impact of online learning on students' course outcomes: Evidence from a large community and technical college system. *Economics of Education Review*, *37*, 46–57. https://doi.org/10.1016/j.econedurev.2013.08.001

Yu, J., Lee, H., Ha, I., & Zo, H. (2017). User acceptance of media tablets: An empirical examination of perceived value. *Telematics and informatics*, *34*(4), 206–223. https://doi.org/10.1016/j.tele.2015.11.004

Zhu, Y., Zhang, J. H., Au, W., & Yates, G. (2020). University students' online learning attitudes and continuous intention to undertake online courses: A self-regulated learning perspective. *Educational technology research and development*, *68*(3), 1485–1519. https://doi.org/10.1007/s11423-020-09753-w