Leveraging the Supremacy of Blended Teaching and Learning Provisions in ECD Environments in Gweru Urban Schools

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ABSTRACT

Soon after the Covid-19 induced lockdown era, blended teaching and learning provisions gained tremendous popularity, and schools are endeavouring to laud its advantages in teaching and learning environments. This study delved on the how to leverage blended teaching and learning facility in ECD settings in Gweru Urban Primary Schools in a bid to attain sustainable education. Blended teaching and learning combine the traditional classroom teaching with emerging technology provisions and online educational facilities, making learning more real, funny, interesting, contextual, and engaging. The Blended Learning Model Theory by Garrison and Kanuka (2004) formed the theoretical framework for the study. The theory explains how blended learning combines face-to-face learning and online learning facilities to create a more effective and engaging learning environment. Interpretivism paradigm, qualitative research approach and a descriptive survey research design formed the research methodology of this study. Questionnaires, interviews and observations were data collection instruments used to collect data from ten primary schools in Gweru Urban. Results were thematically presented, where emerging themes were analysed in relation to research questions. Blended teaching and learning provisions proffer higher learner achievement in ECD settings. It emerged that the utilisation of blended teaching learning facilities in ECD settings was facing multitudinous challenges. The study, therefore, recommends a multifaceted approach to arrest challenges affecting both teachers and learners when utilising blended teaching and learning facility in ECD environments.

Key Words: Leveraging, Supremacy, Blended Learning, Primary Schools and Sustainable Education.

BACKGROUND TO THE STUDY

Thoughtful merging of face-to-face lessons and e-learning facilities has taken precedence in the current world of education. This became more conspicuous during and extended after the Covid-19 pandemic era which rocked the world between the period 2019 and 2021. The pandemic greatly affected humanity in diverse forms across all continents, putting the whole world in a panic mode. The education sector was not spared by this tsunami either, hence e-learning platforms were adopted for teaching and learning. Covid-19 tremendously affected mostly Early Childhood Development (ECD) learners due to their vulnerability than any other group of learners in schools. Sustainable Development Goal (SDG) Number 4 advocates for inclusivity and equitable quality education towards lifelong learning and opportunities for all children (UNICEF, 2019 & Muchandiona & Manyumwa, 2024). Covid-19 induced lockdowns caused extended school closure globally, bringing about and strengthening the use of e-learning platforms in the education sector. This was because remote teaching and learning were seen as the only ways to allow learners to continue with their education, when face-to-face lessons were rendered impossible.

Since the whole world was caught unaware by the Covid-19 pandemic, most schools were not prepared to embrace and capitalise e-learning platforms in the teaching and learning processes. Antwi-Boampong & Bokolo, (2022) explain that throughout the Covid-19 era, some learners, staff members and institutions benefited a lot from e-learning facilities. A number of schools across the globe, especially in developed nations

utilised e-learning platforms positively and learners continued with their education fairly well (Bokolo, 2021; UNICEF, 2023 & Muchandiona & Manyumwa, 2024).

Considering the fact that a number of developing countries were still struggling to embrace digital technology in the teaching and learning process in ECD environments due to multitudinous challenges, hence e-learning was not an easy go when it was sorely adopted as the methodological approach to education during the Covid-19 era lockdown-induced era. WHO Africa Press Release (2023) & UNICEF (2023) indicate that when Covid-19 hit the world, a number of developing nations especially in Africa were still struggling to address issues of equitable and quality in schools, especially in the area of technology usage in ECD environments.

Zimbabwe is among the countries where the use of e-learning platforms in education was still at the infancy stage when Covid-19 came. Monteiro et al (2017), Lim et al (2019), University of NSW (2020) & Ogegbo & Aina (2020) believe that blended learning was adopted in a number of countries well before Covid-19 came. After schools re-opened their doors for face-to-face learning, a number of learners were lagging behind in terms of knowledge and development across all areas, due to lost time, especially ECD learners who easily forget what they learn if not continuously reinforced. The need to put measures in place and cover for the lost time is a necessity moving forward with education, hence blended learning is inevitable (Muchandiona & Manyumwa, 2024; Mupfumira, 2023; UNESCO, 2023 & Abizanda, 2022).

Since 2021, when Zimbabwean schools re-opened doors welcoming back learners for face-to-face lessons, it shows that the education system is still in a transition stage to effectively embrace blended teaching and learning facilities. It is therefore incumbent for ECD managers to expand learning pathways through blended teaching and learning provisions, in liaison with all necessary stakeholders and actively create avenues for learner-teacher friendly environments, for optimal benefits among ECD learners. Vaughan (2007), Tortisi-Steele & Drew (2013), Taylor & Newton (2013) & Bokolo (2021) delineate that blended teaching and learning has a number of benefits which include: flexible teaching and learning routes, good for time management, improved learner outcomes, room for educator-learner interaction, active engagement for learners, pliability for continuous improvement of the system as it unfolds and it enhances reputation of schools.

Properly utilising blended teaching and learning facilities has the ability to boost confidence among ECD learners and transform learning institutions to be inclusive. Duma et al (2022), Mupfumira (2023) & Muchandiona & Manyumwa (2024) concur that there is need to rethink and restructure pedagogical approaches to education in this post-Covid 19 era through blended teaching and learning avenues, to cover up for the lost time and promote sustainability in education. Hybrid strategies should be championed in ECD settings for learners to develop to their fullest opportunities. Blended teaching and learning philosophy continue to evolve in schools as ECD managers strive to combine face-to-face lessons with e-learning facilities. Alexander et al (2019), Bokolo (2021) & Antwi-Boampong & Bokolo (2022) second that e-learning facilities are not coming to replace the much-needed face-to-face learning in schools, but to be merged with traditional face-to-face teaching and learning in order to make education live, self-guided, interactive, enjoyable and move concurrently with the current trends of life where technology use has taken precedence in almost every aspect of human life.

To achieve efficacy in education through blended teaching and learning provisions, more strategies need to be devised and utilised in Zimbabwean ECD settings. Literature shows that blended teaching and learning provisions being utilised in Zimbabwean ECD environments is not uniform and do not follow a specified system due to lack of clear policies and legal provisions to support this facility. This however pose an educational gap that has to be filled through forensic research. Garrison and Kanuka (2004, pp. 100–101) elude that for blended learning to be fruitful, the need for clear policies, strategic and operational plan, resource dedication, proper scheduling of programmes and support system is inevitable. In Zimbabwean ECD settings, the utilisation of blended teaching and learning facilities is still facing multitudinous challenges which need to be addressed through research, hence this study strived to fill this educational gap.

Problem statement

Despite the efforts to embrace blended teaching and learning provisions in the ECD environments in

Zimbabwe, a number of challenges persistently derail the anticipated benefits of such educational provisions. A vast educational gap was evident since few researches were done to address these challenges especially in ECD environments. It is against this background that the study delved on the supremacy of blended teaching and learning provisions in ECD settings in Gweru Urban Primary Schools, and proffer strategies to leverage the potentials of this educational provision, address existing challenges and improve the teaching and learning outcomes for lifelong learning.

Research questions

This study was structured and guided by the following research questions:

a) To what extent are primary schools in Gweru Urban utilising blended teaching and learning provisions in ECD settings?
b) How does blended teaching and learning provisions impact on pupil learning outcomes at ECD level?
c) Which strategies can be amplified to effectively leverage blended teaching and learning provisions in ECD environments?

Research objectives

The following objectives guided this study in the bid to provide complete answers to the research questions. The study endeavoured to:

a. Establish the extent to which primary schools in Gweru Urban are utilising blended teaching and learning provisions in ECD settings.
b. Unearth on how blended teaching and learning provisions impact on pupil learning outcomes at ECD level.
c. Suggest strategies which can be amplified to effectively leverage blended teaching and learning provisions in ECD environments.

REVIEW OF RELATED LITERATURE

Theoretical framework

These researchers embraced the Blended Learning Model Theory (BLMT) by Garrison & Kanuka (2004), as the theoretical framework forming the gist for this study. Duma et al (2021) support that blended teaching and learning is an approach to education which aims at developing teaching and learning beyond individual courses at the institution thereby offering lifelong learning and life skills. Bokolo (2021), Smith & Hill (2019), Tyler & Newton (2013) & Garrison & Kanuka (2004) concur that BLMT is a framework which integrates online and face-to-face teaching and learning provisions in learning environments. This model is centred on three core components which are believed to be key in creating an effective blended teaching and learning environment namely social presence, teaching presence and cognitive presence.

Garrison & Kanuka (2004), Bokolo (2021) & Antwi-Boampong & Bokolo (2022) delineate that social presence refers to the ability to project oneself and connect with other members in an online environment thereby fostering community and collaboration through digital devices and technologies. Teaching presence component forms a crux for effective blended teaching and learning pedagogy since it deals with the ability for ECD teachers to design, facilitate and direct learning experiences while providing learners with proper guidance and support. Poon (2013) & Rasheed (2020) argue that cognitive presence is the extent to which learners are able to blend face-to-face and online learning facilities, confirm and construct meaning from this provision through critical thinking, reflection and discourse. This model entails that social presence enables ECD learners to connect and interact using both face-to-face and online platforms, teaching presence allows ECD teachers to provide structure and guidance while cognitive presence facilitates deep learning and understanding where blended teaching and learning provisions are utilised.

Factors triggering the adoption of blended learning in ECD settings

Multitudinous normative, coercive and mimetic pressures are triggering the adoption of blended teaching and learning provisions in ECD settings. VanDerLinden (2014) & Alexander et al (2019) support that in the current world, blended teaching and learning facilities are no longer a privilege but a necessity in the education for lifelong learning and skills development among learners. Some key factors forcing the education sector to adopt blended teaching and learning in ECD environments include technology advancement, curriculum requirements, market / industry expectations, government initiatives, scalability and cost-effective and the flexibility of the facility.

Technology advancement

Improved access to digital technological devices, internet connectivity and online resources had triggered the adoption of blended teaching and learning provisions in ECD settings globally. Smith & Hill (2019), Hrastinski (2019), Antwi-Boampong & Bokolo (2022) & Muchandiona et al (2024) elude that technology advancement in human life enhanced the adoption of blended teaching and learning facilities in the education fraternity. Due to technology advancement, there is improved access to quality digital resources which include online educational applications and software, e-books, search engines and online games. Technological facilities support and supplement traditional ways of education where face-to-face lessons were the only order of teaching and learning. Blended teaching and learning in ECD environments allow both face-to-face and online platforms to be utilised in concurrently.

ICTs have greatly transformed the ways in which education is done world over for the past two and half decades. The adoption of advanced digital technology in education has become essential in providing a wealthier and exhilarating teaching and learning experiences in education (Garrison & Kanuka, 2004; Poon, 2013; Smith & Hill, 2019; Muchandiona & Manyumwa, 2024; Muchandiona et al, 2024). Other crucial affordances that qualify technology advancement in education as indispensable learning instruments include their credibility, interactivity, suppleness, and lifelong learning provisions. Technology advancement in ECD settings guarantee active learner engagement in learning and development activities and instils great degree of discipline, motivation, and self-control if effectively capitalised. Technology use in ECD environments facilitate effective communication, interaction, and collaboration where perplexing teaching pedagogies and learning activities are doable. With this provision, learners obtain meaningful knowledge easily; and use their metacognitive abilities proficiently; and educators capitalise the efficacy of this instructional strategy eminently, which was not possible when face-to-face lessons were the only order of the day in education (VanDerLinden, 2014; & Tortisi-Steele & Drew, 2013).

Curriculum requirements and market expectations.

Technology use has taken over most aspects of human life, hence its adoption in education is a response to the new way of human life. Bokolo et al (2020), Hrastinski (2019) & Duma et al (2021) concur that technology use in the current world has become more prevalent and by so doing, the education sector followed suit for it to remain valid in the modern world. Due to the current dominance of technology in human life from the global spectrum, technology use is unavoidable in education, hence blended teaching and learning facility was adopted in schools. Aruleba & Jere (2022) support that due to technology advancement, the world has been turned into a global village and technology use is becoming more prominent globally. School curricular were also modified to encapsulate blended teaching and learning provisions, so as to meet the new demands of the world and ensure that learners are equipped with computer skills and knowledge which are now a necessity in the market. In Zimbabwe, the Zimbabwe`s Curriculum Framework (2015-2022) triggered the adoption of blended teaching and learning provisions in ECD settings. In this regard, the adoption of blended teaching and learning provisions in ECD settings is a fulfilment of the curriculum requirement in the country.

Government initiatives

The Zimbabwean government made several initiatives to support the adoption of blended teaching and learning provisions in ECD settings. The Zimbabwe National E-Learning Strategy (2017-2022), Zimbabwe Education Amendment Act (2020) and Zimbabwe ICT in Education Policy (2019) all recognise and support the integration of ICTs in ECD education. The Zimbabwean government also went on to adopt a Digital

Literacy Programme aiming at empowering teachers and learners with digital skills from the ECD level onwards. The Ministry of Primary and Secondary Education of Zimbabwe partnered with UNICEF to provide digital resources, teacher training programmes and infrastructural facilities as a way of supporting blended teaching and learning programmes across the country. A number of schools in rural areas received computer donations and WiFi installation was done by the government in partnership with UNICEF. Selected teachers from both primary and secondary schools were also enrolled for Bachelor`s Degree Programmes in Computer Science and ICT in Universities while sponsored by the government and UNICEF to equip them with ICT skills so that blended teaching and learning can be a success in the country.

Scalability and cost-effective

Blended teaching and learning provisions are scalable and cost-effective in the education. Porter et al (2016), Porter & Graham (2016), Alexander et al (2019) & Bokolo (2021) all concur that blended teaching and learning provisions have room for digital resource sharing where open resources and free digital resources can be utilised thereby reducing teaching and learning costs. The scalability and cost-effective provisions within the blended teaching and learning facility allow teachers to utilise offline solutions, educational software and applications thereby minimising internet costs. The Zimbabwean government has collaborated with UNICEF and other private partners where solarisation of selected schools especially in rural areas is being done towards the Vision 2030. This was seen as a cheaper way of powering digital devices in schools which is reliable, cheaper and sustainable for effective blended teaching and learning provisions. Solarisation of schools is scaling up blended teaching and learning provisions in Zimbabwean schools.

Flexibility

The utilisation of blended teaching and learning facilities amongst the teaching staff and learners in ECD settings is believed to be flexible and friendly in education. Smith & Hill (2019), Rasheed (2020) & Muchandiona et al (2024) all agree that blended learning provisions afford personalised learning among learners where tailored instructions can be capitalised for individual needs of ECD learners. Muchandiona & Manyumwa (2024) second that virtual teaching and learning platforms in ECD environments allow flexible scheduling where online facilities can be accessed and capitalised anywhere and at any time. Since blended teaching and learning allows the use of both face-to-face and virtual teaching and learning platforms, multiple paths can be utilised which enable ECD learners to learn and grasp concepts at their own pace. Bokolo (2021) & Bokolo et al (2020) elude that utilising online facilities in education is effective where learners can work on their own, collaborate with others from different environments and can get instant feedback.

METHODOLOGICAL DELINEATION

Interpretivism research paradigm encapsulating qualitative research approach and a descriptive survey research design formed the research methodology of this study. This methodology gave the researchers the pliability to delve and understand issues on the utilisation of blended teaching and learning provisions in ECD environments in Gweru urban primary schools as they unfold in natural environments. Creswell (2017) Bak, (2020) & Crossman, (2020) support that through interpretivism, researchers have room to understand social issues affecting humanity in communities and delve into reasons on why things are the way they are, thereby constructing meaning behind certain occurrences in societies. Qualitative research approach was adopted in this study since it is an objective approach which helped the researchers to develop an understanding on the phenomenon under study in ECD environments, independently from various idiosyncratic notions and research biases.

A descriptive survey design was utilised by the researchers since it gave them the room to look at real-life experiences and describe the phenomenon of utilising blended teaching and learning provisions from the participants` perspectives using objective research instruments which included questionnaires, interviews and observations. Bak (2020), Creswell (2017) & Tichapondwa (2013) agree that a descriptive survey is an appropriate means of gathering information where researchers are specifically looking for unique data from the respondents and have prior knowledge of the phenomenon under inquiry. There are ten primary schools in the target cluster of which five were selected to make a sample using a hat system. Five ECD ‘A’ and five ECD ‘B’

teachers completed questionnaires, five teachers-in-charge (TICs) participated in interviews while observations were made in all the five selected schools. Results of the study were presented thematically, where emerging themes from the findings formed the base for generating meaning from data collected, as they relate to the phenomenon under study.

DATA PRESENTATION AND ANALYSIS

How are primary schools in Gweru Urban utilising blended teaching and learning provisions in ECD settings.

It emerged from this study that primary schools in Gweru Urban value the adoption and utilisation of blended teaching and learning provisions in ECD settings. Seven of the ten ECD teachers agreed that primary schools in Gweru Urban were utilising digital teaching and learning platforms to a limited extent due to a number of barriers which act as limitations to such endeavours. TIC 'A' and 'C' opened up that,

'We have the basic physical infrastructural facilities in our schools and supporting devices such as computers, but the challenge of internet connectivity and excessive load-shading are the major blows soiling efforts to utilise digital teaching and learning platforms as part of blended teaching and learning provisions.'

Three of the ten ECD teacher concurred that blended teaching and learning provisions are utilised to an average extent in schools. Bokolo (2020) & Harris et al (2009) agree that poor internet connectivity is a major challenge ploughing back endeavours by schools to capitalise digital learning platforms. Digital teaching and learning platforms were being utilised to a lesser extent in the sampled schools since seven of the ten ECD teachers consulted and four TICs interviewed all concurred that face-to-face lessons dominate the teaching fraternity in ECD settings where almost all schools in Gweru were described as heavily relying on physical lessons in the teaching and learning process. ECD Teacher '1' indicated that:

'I prefer utilising face-to-face platforms in delivering about 80% of my lessons in ECD classes because they foster better attachment between the teacher and the learners. Face-to-face lessons improves both teacher-learner and learner-learner relations other than most digital platforms and they are also reliable where I can offer spot assistance for learners facing challenges.'

Respondents aired that as much as ECD teachers in Gweru Urban Schools appreciate the importance of blended teaching and learning provisions, face-to-face lessons dominate the day-to-day school routines in ECD setting while digital platforms are utilised to a limited extent and in some cases are rarely utilised for various reasons. The situation on the ground showed that the utilisation of digital teaching and learning platforms as part of blended teaching and learning provisions in ECD settings was still infancy stage in ECD settings. Poon (2013), Alender et al (2019), Antwi-Boampong & Bokolo (2022), Mupfumira (2023) & Muchandiona & Manyumwa (2024) all support that poor internet connectivity and unavailability of proper infrastructural facilities have great negative impact which distract the effective usage of digital teaching and learning platforms in schools.

TICs argued that load-shedding is greatly hindering the utilisation of digital tools in the teaching and learning process. The respondents agree that usually during the day, electricity will not be available in schools and most schools do not have power back up if electricity from the main grid is not available. ECD teacher '7' discloses that: 'At times as the ECD department we are neglected as far as the access to digital tools is concerned in schools. Most school administrators prioritise that such tools be utilised by learners in junior classes. Muchandiona et al (2024) & Muchandiona & Manyumwa (2024) elucidate that some school administrators do not budget for ICT resources for the ECD department making this department the most vulnerable one in most schools since does not have access to digital resources they require for online lessons.

Benefits of effective blended teaching and learning in ECD settings

From all the respondents` views, effective blended teaching and learning is vital for enhanced learner engagement and motivation in ECD environments. Interactive landscapes of digital technology were seen as

aiders for learner engagement in ECD environments, where learners can interact with peers and their educators, while sharing useful resources and information, and open a leeway for collaborative problem-solving by-passing space and time constraints. Graham et al., (2013); Bokolo et al (2020); Porter et al (2016); Porter & Graham, (2016) & Muchandiona & Manyumwa (2024) concur that the utilisation of digital technology in education breaks the four-corner walls of the classroom into the real world where reality can be brought into the classroom with ease. The respondents delineated that ECD learners love using digital devices in their learning since they provide colourful and attractive pictures, highly capture learners` attention and are flexible to shift static content into motion such as graphs, charts or pictures making the teaching and learning environment live. Digital technology brings animations, videos, or interactive illustrations in ECD environments which betroth sustainability in education.

ECD Teacher 3 indicated that:

'Blended teaching and learning provisions are vital for offering personalised learning experiences among ECD learners where both digital platforms and face-to-face lessons are capitalised, complimenting each other. The weaknesses of one pedagogy are covered up by the other pedagogy. Blended teaching and learning also help ECD learners with special learning needs to navigate on digital platforms and learn at their own pace so that they do not lag behind.'

Duma et al (2021), Alexander et al (2019) & Mupfumira (2023) believe that use of digital tools in education offer personalised learning experiences which help learners to develop self-directed learning skills which are key for future learning. TIC 'D' & 'E' both elucidated that blended teaching and learning facilities in ECD settings enhances teacher-learner interaction and give comprehensive feedback. This enhances teacher-learner relationship where a strong bond is created in ECD environments.

All the ECD teachers and the TICs were in agreement that blended teaching and learning provisions improve digital literacy skills which are now a necessity in human life in the current world. ECD Teacher '6'; '9' & '10' all wrote that:

'Blended teaching and learning in the current world are now viable pedagogical approaches to ECD education since our lives are now ICT driven. Learners need to be competent in using ICTs in education and other ways of their life for them to fit in the modern society and live hustle-free lives.'

In congruency to this notion, Sarı & Keser (2021); Abizanda, (2022); Maphosa, (2021); Graham et al., (2013) & Smith & Hill, (2019) second that computer-mediated pedagogies have evolved to the extent that they are now utilised in re-engineering the teaching and learning processes. Blended teaching and learning provision in ECD environments are capable of supporting interactive pedagogies through both asynchronous and synchronous forums.

The respondents agreed that digital learning platforms enhance active learning, that is learning by doing, opening avenues for group learning through discussions and collaboration while facilitating self-learning and reflection (metacognition) among ECD learners. Similarly, Boyle (2008); Taylor & Newton (2013); VanderLinden (2014); Bokolo (2021) & Muchandiona et al (2024) elucidate that capitalising digital teaching and learning platforms support inquiry-based learning which is constructive; adeptness, responsive to learners` needs and contexts; trigger higher order thinking skills; prepares learners for lifelong learning and promotes even-handedness in ECD education. Blended teaching and learning provisions do not totally rely on digital learning platforms alone, but is a fusion of online and face-to-face teaching and learning facilities. ECD teachers pointed that face-to-face lessons meet the affective, cognitive and psychomotor objectives in ECD education. Boyle (2008) & Muchandiona & Manyumwa (2024) highlight that face-to-face lessons provide the much-needed human touch which helps in developing a strong value system, social skills such as cooperation, sharing, self-expression, self-respect and respect for peers. The observations made in the five sampled schools showed that utilising blended teaching and learning provisions is capable of producing enhanced learner outcome in ECD environments as compared to merely focusing on either face-to-face or online lessons.

TIC 'B' indicated that: 'Capitalising blended teaching and learning provisions increases curiosity and critical thinking among ECD learners which help them to understand concepts better.' ECD Teacher '3' noted that: 'The use of blended teaching and learning provisions enhances the development of advanced numeracy and literacy skills among ECD learners.' Antwi-Boampong & Bokolo (2022), Beaver et al (2014), Bokolo (2021) & Cleveland-Innes & Wilton (2018) argue that utilising blended teaching and learning provisions fosters curiosity, promotes equity, encourages learner participation while respecting diversity where all learners are included in the teaching and learning process. It emerged from the study that blended teaching and learning provisions open multiple-teaching and learning paths which allow learners from diverse backgrounds and different abilities to learn at their own pace and capitalise the learning method which suits them most.

Strategies to leverage blended teaching and learning in ECD settings

The respondents were in agreement that the Ministry of Education in collaboration with a number of NGOs, school administrators, and the local community need to invest in digital infrastructure. TICs and ECD teachers in Gweru Urban all argued that shortage of digital infrastructural facilities in schools is negatively affecting the effective utilisation of blended teaching and learning provisions in ECD environments. Tan & Newton (2012), Torrisi-Steele & Drew (2013), Harris et al (2009) & Williams (2022) support that inadequate infrastructure such as computers, the internet and power or electricity are major barriers to effective use of digital teaching and learning platforms in various educational institutions especially in primary schools. Without digital infrastructural facilities in place to support online teaching, blended teaching and learning is always a flop. TIC 'A' indicated that: 'Despite the desire that ECD teachers have to utilise blended teaching and learning provisions in ECD environments, vast shortage of supporting facilities and tools remains as a major glitch derailing this desire.'

A number of ECD teachers aired that they do not have all the necessary technological expertise to capitalise digital pedagogical facilities in their teaching process. Manhibi (2019), UNESCO (2022), Maphosa (2021), Smith & Suzuki (2015), Muchandiona & Manyumwa (2024), Williams (2022) & Mupfumira (2023) allude that there is need to invest in teacher training programmes where teachers are empowered on how to utilise digital technology and online facilities in the teaching and learning environments since a number of teachers do not have the needed skills. TIC 'E' echoed that school administrators need to schedule for blended teaching and learning courses and modules, evaluate blended learning activities and open opportunities for teacher capacity development through seminars, workshops and courses. Administrative frameworks that support the implementation of blended teaching and learning provisions in ECD environments were seen as a necessity, for sustainable blended education.

Eight out of ten ECD teachers who consulted aired that there is need for policy formulation and proper guidance for effective blended teaching and learning in ECD environments. TIC 'B' coins that: 'As a country, we do not have clear policies which regulate blended teaching and learning provisions in ECD environments. In such a scenario, we cannot be confident on implementing blended teaching platforms since we are less confident on what we do because of lack of policy guidelines.' Dong & Mertala (2021), Mafang`ha (2016), Williams (2022), Alexander et al (2019), Bokolo (2021), Hrastinski (2019) & Rasheed (2020) posit that for effective blended teaching and learning provisions in schools, there is need for clear guidelines on how to blend various teaching and learning platforms in an education system harmoniously.

Parental engagement was noted as another way in which blended teaching and learning provisions can be capitalised in ECD settings in Gweru Urban Schools. Parental engagement in blended teaching and learning programmes empowers the community and instils in them the sense of ownership of school programmes, thereby strengthening the utilisation of blended teaching and learning pedagogy thither, remitting lifelong learning in ECD environments. Hrastinski (2019), Harries et al (2009), Poon (2013), Huang (2008) & Tan & Newton (2012) illuminate that parental involvement in educational programmes need to go beyond merely knowing what their children are expected to learn in schools but understand the philosophical meaning of blended learning beyond the classroom set up. TIC 'D' echoes that:

'We need to regularly engage our parents in blended teaching and learning programmes in ECD settings so that parents are aware of school operations for them to offer full support in return. Teacher-parent relations are

also enhanced where both parties would collaborate and assist ECD learners to glide well in their education endeavours.'

Capitalising blended teaching and learning provisions require cooperation and support from the local community, the government, NGOs, and individuals (Maphosa, 2021; Poon, 2013; Oliver & Trigwell, 2005; Smith & Suzuki, 2015 & Torrisi-Steele & Drew, 2013). Parental engagement and community involvement in the utilisation of blended teaching and learning provisions would open avenues for effective technical and pedagogical support from the community well-wishers for sustainable and lifelong learning in ECD environments. UNICEF (2024) argues that parental engagement in blended teaching and learning programmes is an indispensable notion if such programmes are to be viable in ECD environments.

ECD Teacher '5' argues that: 'As a new phenomenon in ECD`s education system, blended teaching and learning provision still has some grey areas which need to be filled through research.' Smith & Hill (2019), elude that research is required both at micro and macro level to shape institutional vision of blended teaching and learning operations, which incorporates literature related and contextual studies. Research in the area of blended teaching and learning produce strategic documentation through vigorous interviews, observations and other instruments capitalised by expert practitioners to identify key opportunities and challenges of both shaping and implementing institutionalised approach to blended teaching and learning.

Institutional collaborations where ECD centres in developing countries partner with those in developed countries can also be aided for the implementation of blended teaching and learning programmes. ECD teachers and TICs illuminated that partnerships of ECD centres and primary schools in Gweru Urban and other international ECD centres in developed countries such as USA, Germany, France and China can facilitate exchange programmes where teachers from Zimbabwe are engaged in exchange programmes for them to learn on how blended teaching and learning is done in developed countries and they would capitalise such knowledge to implement what they learn from other centres, in local ECD environments. In such partnerships, ECD centres in developed countries at times donate digital tools and resource materials to aid blended teaching and learning programmes. Hrastinski (2019), Norberg et al (2011) & Anttwi-Boampong & Bokolo (2022) delineate that partnerships between schools help staff members to share knowledge and ideas on how to capitalise blended teaching and learning provisions fruitfully.

CONCLUSIONS

This study concluded that blended teaching and learning provisions in ECD settings in Gweru Urban Primary Schools have the potential to enhance learner engagement and improve both digital literacy and independent learning skills among ECD learners. This provision is inclusive in nature, where ECD learners of diverse categories can be embraced in the teaching and learning process with ease. Face-to-face lessons, the dominant approach in Gweru ECD environments, foster strong teacher-learner relationships and immediate feedback, making learning experiences more personal and interactive. Digital platforms offer dynamic tools which include animations, videos, and interactive illustrations, which captivate ECD learners and encourage critical thinking, peer-tutoring, collaboration, numeracy and literacy skills. Despite the limited infrastructural facilities, the appreciation of blended teaching and learning`s potential among ECD teachers shows readiness for growth. With proper resources and multi-stakeholder collaboration, blended teaching and learning provisions can significantly enhance learning in ECD environments in Gweru Urban Primary Schools.

Scourges derailing the utilisation of blended teaching and learning provisions included inadequate infrastructural facilities, unreliable internet connectivity, frequent power outages and lack of ICT tools. Moreover, ECD teachers lack adequate training on how to effectively integrate digital technologies in their teaching practices. Aditionally, ECD departments in some schools are often neglected , receiving limited resources as compared to the other grades. The absence of clear policies and guidelines on blended teaching and learning further exacerbates the issue, leaving ECD teachers unsure of how to utilise such provisions in ECD environments. Lack of dedication from school administrators and other management staff, together with limited parental engagement and multi-stakeholder collaboration also derailed efforts to fully leverage blended teaching and learning provisions in some ECD settings in Gweru Urban Primary Schools.

RECOMMENDATIONS

To leverage the potentials of blended teaching and learning in ECD settings in Gweru Urban, the Ministry of Primary and Secondary Education of Zimbabwe need to invest in digital infrastructure, including reliable internet access and power backup solutions for schools. Regular training programmes for ECD teachers on how to integrate digital tools into their teaching methods are essential for realising long-term success in education. Clear policy guidelines should be developed to regulate blended teaching and learning provisions in EC D environments. Increased collaboration among schools, NGOs and local communities could provide additional support for digital initiatives. Additionally, partnership with schools in developed countries could help by providing mentorship, technological resources and professional development opportunities which are key for leveraging blended teaching and learning provisions in ECD environments in Gweru Urban and beyond.

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