BLENDING CULTURAL FOLKTALE WITH DIGITAL STORYTELLING IN THE TEACHING AND LEARNING PROCESS OF PRIMARY SCHOOL CHILDREN IN GABORONE, BOTSWANA

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Abstract
This qualitative study explores teachers' perspectives on blending cultural folktales with digital technology in Botswana's early childhood education. In Botswana, like elsewhere, local traditions are passed down through folktales, yet there is a significant gap in integrating these narratives into technology education. This oversight risks the extinction of Botswana's folktales due to modernization. The study emphasizes the need to incorporate digital storytelling within educational frameworks, following a paradigm shift towards Indigenous Knowledge (IK). Grounded in constructivism, the study aimed to uncover teachers' perceptions and challenges in merging cultural folktales with digital technology. Through in-depth interviews with preschool teachers, the study identified a generally positive outlook on digital storytelling, but highlights challenges such as a lack of skills, knowledge, and resources. Recommendations include training teachers and providing resources to enhance the integration of cultural folktales with digital technology for meaningful learning experiences of young children.

Keywords: digital storytelling, digital technology, cultural folktales, young children, preschool teachers

1.0 Introduction

In today's increasingly globalized world, the rapid development of information and communication technology (ICT) has sparked a diversified approach to teaching and learning. This has led to development of digital technology and web learning skills. In education, digital technology has a high potential to improve learning quality and transform learning experiences to be more meaningful for students (Ke & Hoadley, 2009). Therefore, digital folktale/digital storytelling is one important technology-based learning platform to encourage and achieve meaningful learning. Digital storytelling is a recently emerging contemporary narrative culture (Wilson, 2014), and refers to the combination of the art of storytelling with digital multimedia such as images, sounds, and videos (Robin, 2006).

Integrating cultural folk tales with digital technology into the curriculum can provide valuable insights into different societies, values, and traditions. With the rapid advancement of digital technology, teachers now can blend traditional storytelling with interactive digital tools to create an engaging learning experience for students (Robin, 2006). However, what appears to be the problem is how to effectively utilize the digital folk tale technology. This lack of integration poses a threat to the preservation and continuation of indigenous cultural practices, as traditional storytelling struggles to adapt to the demands and preferences of the digital era.

The absence of prominent inclusion of cultural folktales in technology education hinders the potential benefits and opportunities that digital storytelling can offer for meaningful and inclusive learning experiences. By leveraging digital technology, we can rekindle the magic of folktales and ensure their relevance in the lives of a 21st-century child. This paper aimed to explore the teachers' perspectives on blending cultural folktales with digital technology (digital storytelling). The study focuses on investigating the potential benefits and challenges associated with digital storytelling as a pedagogical approach for young children. By conducting a case study in reception classes at Lesirane Primary School in Mogoditshane, Botswana, the study delves into the perceptions and experiences of teachers working with children in reception classes. The findings of this study hold significant implications for educators, government officials, and policymakers, offering valuable insights for teachers to harness the power of digital storytelling in their classrooms. By embracing the blending of cultural folktales with digital technology, stakeholders can foster a deeper appreciation for cultural diversity, engage children in meaningful learning experiences, and equip them with essential digital literacy skills.

Blending cultural folktales with digital technology in digital storytelling holds immense potential for promoting cultural diversity and intercultural understanding among primary school children. The incorporation of culturally diverse narratives allows children to explore different traditions, customs, and perspectives. According to Hamamoto (2019), digital storytelling can help bridge cultural gaps and foster empathy and respect for diverse cultures. Researchers have emphasized the importance of selecting and adapting culturally appropriate folktales to suit digital platforms, ensuring authenticity and accuracy in the representation of cultural elements (Nikolopoulou et al., 2021).

The emergence of digital storytelling can be traced back to the late 1980s when it originated at the Center for Digital Storytelling in California. It was initially utilized by community theatre workers to facilitate the recording, production, and sharing of stories (Lambert, 2009). Normann (2011) defines digital storytelling as a concise narrative lasting approximately 2-3 minutes, in which the storyteller utilizes their voice to recount a personal story. Over time, digital storytelling has undergone significant development, driven by advancements in personal computing and recording technology, as well as its application in diverse academic and non-academic settings (Clarke & Adam, 2011; Normann, 2011). This approach integrated multimedia components such as images, audio, video, and interactive features to construct narratives that are immersive and interactive in nature.

2.0 Objectives of the study

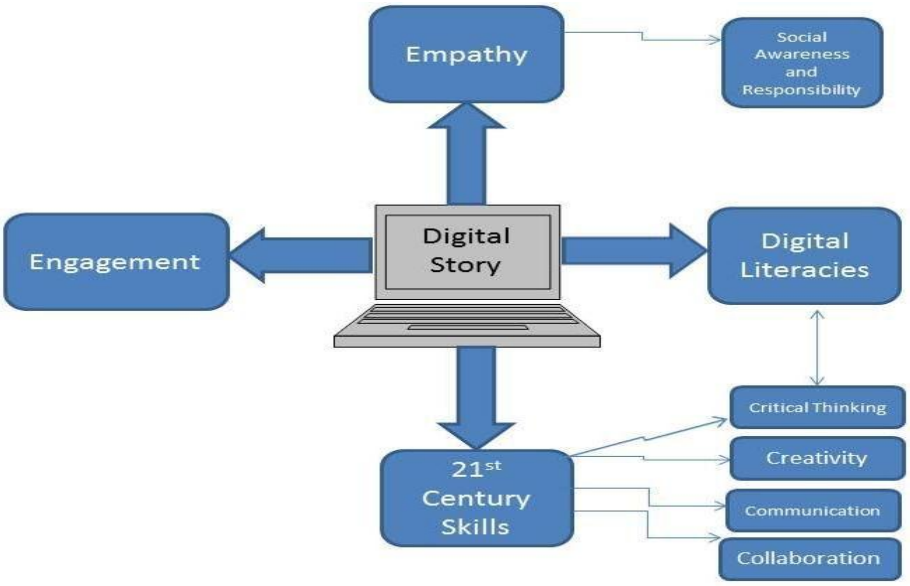
The specific objectives of the study are: (1) to explore preschool teachers' perspectives on integrating cultural folktales with digital technology within the teaching and learning process, (2) to assess the perceived benefits of digital storytelling as a pedagogical approach and (3) to identify the challenges and barriers that teachers encountered when attempting to incorporate digital storytelling into their educational practice.

3.0 Literature review

Teachers' attitudes and beliefs play a significant role in the successful implementation of digital storytelling. Research suggests that teachers who have positive attitudes toward technology are more likely to embrace digital storytelling as an instructional approach (Morgan, 2007). These teachers perceive technology as a valuable tool for enhancing student learning and are more willing to invest time and effort in integrating it into their teaching practices. Moreover, teachers' beliefs about the impact of digital storytelling on student learning influence their instructional decisions. Some teachers view digital storytelling to promote creativity and self-expression, while others see it as a tool for developing critical thinking skills (Robin, 2008).

Several studies have highlighted positive perceptions among teachers regarding the blending of cultural folktales with digital technology. For example, a study by Smith et al. (2018) found that teachers believed digital technology could enhance students' understanding and appreciation of cultural diversity. They reported that digital tools allowed for more interactive storytelling experiences, enabling students to immerse themselves in different cultures. In a study by Knezek and Christensen (2006), researchers surveyed primary school teachers to gather their perceptions of digital storytelling in the classroom. The findings indicated that most teachers viewed digital storytelling as an effective tool for promoting creativity, critical thinking, and collaboration among students. The teachers also reported that digital storytelling helped to engage their students in the learning process and made it more enjoyable for them. Similarly, a study by Hill and Hannafin (2008) showed that the teachers believed that digital storytelling was an effective way to promote language development, creativity, and self-expression among their young students. The teachers also reported that digital storytelling helped to create a positive learning environment and encouraged their students to take risks and try new things.

The picture below shows an overview of the benefits of digital storytelling discussed in the review of the literature:



Source: Adapted from Thompson (2018)

Researchers have demonstrated an array of benefits associated with the use of digital storytelling as a pedagogical tool (Sadik, 2008; Yuksel et al., 2010). These advantages include increased creativity, better writing and communication abilities, better student engagement, and the capacity to synthesize and present information in an orderly fashion. Digital storytelling also encourages students to collaborate and think critically, which makes learning more engaging and significant (Yuksel et al., 2010). Digital storytelling is an effective strategy for improving students' teaching and learning processes. It improves learners' ability to write, and led to achievement of learning outcomes (McElfresh, 2011; Yuksel et al., 2011). Research shows that digital storytelling develops students' ability to synthesize, analyze, evaluate, and present information in an organized way (Alismail, 2015; Knezek & Christensen, 2001; Sylvester & Greenidge, 2009). Furthermore, a study by Kervin and Mantei (2016), showed that using technology can help support children in future grades and help educators gain insight into how children learn and apply what they are learning. In a study by Hsin and Cigas (2013), teachers reported that digital storytelling helped them connect with their students and created a positive learning environment. The implementation of information communication technology, in the form of digital narratives, in foreign/second language classes increases students' motivation and helps them develop lifelong learning skills while enabling interaction with native speakers using language for real purposes and in real situations (Ghasemi & Hashemi, 2011). For those students who struggle with traditional literacy, digital storytelling helps to tap into other literacies and build an understanding of all literacies (Sylvester & Greenidge, 2009).

Digital storytelling empowers students with the ability to communicate effectively (Garvis, 2018; Gregory et al., 2009; Niemi et al., 2014; Yang & Wu, 2012). Technology provides authenticity and increases learners' willingness to learn the target language. McElfresh (2011) emphasized the usage of digital storytelling to express the need for language learners to share their stories and suggested that this process can help students acquire new vocabulary words. Digital storytelling enhances students' self-identity, cultural understanding and promote social connectedness (Engel, 2005; Hamamoto, 2019; Kervin & Mantei, 2016; Nikolopoulou et al., 2021). Research further shows that digital storytelling can be a powerful tool for integrating numeracy content into storytelling activities (Hutchison et al., 2012; Wright & Wall, 2017). These scholarly investigations provide valuable insights into the multifaceted benefits of incorporating digital storytelling as an instructional approach, emphasizing its potential to cultivate various cognitive and socio-emotional competencies among students.

Teachers may face challenges when implementing digital storytelling in the classroom. For instance, they often struggle to find the time and resources needed to integrate this practice into their curriculum (Hsin & Cigas, 2013). In a qualitative study conducted by Tiba et al. (2015), integrating digital storytelling into teaching practices was hindered by a lack of technological resources in the schools. This aligns with Ahadiat's (2005) identification of insufficient software and hardware as significant barriers to successful technology incorporation in education. Additionally, Tiba et al. (2015) noted that a lack of self-confidence among pre-service teachers could impede their use of digital storytelling. Some

participants expressed concerns that their training did not sufficiently prepare them to teach digital storytelling effectively, leading to apprehensions about applying this approach during their in-service teaching experiences.

Lack of technical skills and knowledge was cited as a challenge in digital storytelling as many teachers may not be familiar with the necessary software or devices required for digital storytelling (Hsu & Wang, 2011). This lack of technical expertise can hinder the implementation of digital storytelling activities and limit its potential benefits for young learners. Preparing and implementing digital storytelling activities is viewed as time-consuming, especially for teachers already overwhelmed with other responsibilities (Hsu & Wang, 2011). A study by Ohler (2008) suggested that teachers should have adequate professional development and support to effectively incorporate digital storytelling into their teaching practice.

4.0 Theoretical framework

The study is underpinned by the constructivist theory of learning, as proposed by Jean Piaget, which views learners as active participants who construct knowledge through experience and interaction with their environment (Jonassen & Land, 2012). In the context of integrating cultural folktales with digital technology in primary education, constructivism offers a useful framework for examining how teachers perceive and apply digital storytelling in their teaching (Conole & Alevizou, 2010; Kinchin, 2012). By grounding the study in constructivist principles, the aim is to enhance teaching and learning by making it more engaging, experiential, and meaningful for young learners.

5.0 Methodology

5.1 Research design and Data Collection Procedure

The research paradigm adopted by this study was constructivism-interpretivism whereby researchers are more interested in discovering and understanding how people perceive and experience the world on an internal subjective basis (Rubin & Babbie, 2011). The researcher used the approach to understand how teachers perceive digital storytelling. This study a qualitative research design with an emic approach. Data was collected though observations and in-depth one-one interviews. Furthermore, the data obtained was reduced, presented, and the conclusion was drawn.

5.2 Sample of the Study

The study's sample population consisted of preschool teachers from Lesirane Primary School in Mogoditshane, Botswana. Purposive sampling was used to select participants due to their direct involvement with reception children making them well-positioned to provide insights into the integration of cultural folktales with digital technology in early childhood education. The selection criteria focused on teachers who had varying levels of experience with digital storytelling, ensuring a diverse range of perspectives and experiences. This diversity allowed the study to capture a comprehensive understanding of the benefits and challenges associated with blending cultural folktales with digital technology in the classroom.

5.3 Data analysis

For each data collection method, a preliminary exploratory analysis of the data collected to gain a general sense of the data and determine whether more data was needed. This study adopted a reflexive thematic approach for data analysis. The researcher followed a systematic, six-phase process of thematic analysis by Braun and Clarke (2006). The analysis of the study's findings focused exclusively on the fundamental questions that guided the research process. For analytical purposes, all audio data were transcribed. Data analysis was conducted using ATLAS.ti version 9, with a focus on identifying recurring themes. After the themes were identified, they were interpreted, summarized the findings, and discussed.

6.0 Findings and Discussion

Findings from classroom observations were integrated with findings from teachers' interviews into a coherent whole. The interview data explained some of the findings that emerged from the classroom observation analysis. These findings are categorized in terms of three predetermined themes which are teacher's beliefs, opinions, attitudes and practice, and challenges to using digital storytelling in young children.

6.1 Understanding the concept of digital storytelling

Regarding the concept of digital storytelling, participants were asked to explain what they understood by the term digital storytelling. Teachers' responses show that teachers are aware of digital storytelling.

> "*It's an electronic appliance or any tools used to teach folktales*." (Teacher 1)
> "*Modern devices that are introduced now in the world and children can learn storytelling using different devices*." (Teacher 2)
> *Digital storytelling means going out of old ways of teaching stories and finding new ways using digital appliances to teach stories*." (Teacher 3)

A study by Sadik (2013) examined the impact of digital storytelling on student learning. It highlights the importance of teachers' knowledge and understanding of digital storytelling as they facilitate and guide students' engagement with this approach. Niess (2008) focuses on Technological Pedagogical Content Knowledge (TPCK) and how it informs teachers' understanding and integration of technology, including digital storytelling, into their teaching practices. It emphasizes the importance of teachers' knowledge of both content and technology in effectively using digital storytelling in the classroom.

6.2 Teachers' perspective

A favourable belief towards digital storytelling in the teaching and learning process of young children was revealed when Teacher 3 and Teacher 1 aptly expressed that:

> "*It is very important to start using digital storytelling for the teaching and learning process in the early years because we live in an era where technology is everything and these children are exposed to all sorts of technology. We cannot run away from*

technology, but we can't let storytelling fade…we should just combine them to be one." (Teacher 3)

"*It's time we go digital in everything because technology is taking its power let's take advantage of it and use it for digital storytelling so that we preserve our culture.*" (Teacher 1).

These comments reflect how ECD teachers' beliefs relate to the importance and successful incorporation of digital storytelling in the teaching and learning of young children, supporting the findings of Al Rub (2015) and Miller (2018). A study done by Smeda et al. (2014) using a mixed-method approach to research teacher's student learning through digital storytelling sampled 5 teachers for interview questions. The findings revealed that teachers had a positive attitude towards the use of digital storytelling as a teaching tool in their classrooms, as both students and teachers had the opportunity to improve their technological skills, which included the use of various electronic devices, as previously mentioned.

6.3 Available digital technology and its use for digital storytelling

Similar to findings by Burnett (2014), it was observed that digital technologies available were computers positioned in a specific classroom and teachers had to take their children to this classroom whenever they wanted to use the computer. The computers and chairs in the computer room were not developmental and age-appropriate, the chairs were too high and big for the children, the computers were big and old, and they were not colourful. The computers were also limited and not enough to support digital storytelling as demonstrated by the following comments:

"*Here we have computers only…. They are in the computer room.*" (Teacher 2)

"*The computer room has computers only that's the only technology we have in school.*" (Teacher 1)

"*Computers only nothing else*." (Teacher 3)

Findings have revealed that teachers never use digital technology for storytelling, it showed that teachers don't know anything about using the available digital technology for storytelling and they are not confident. Fadde & Sullivan's (2010) study investigates preservice teachers' experiences and self-efficacy beliefs regarding technology, including digital storytelling. Similarly, Zhang & Zhu (2018) in their mixed methods study explores elementary teachers' perceptions and challenges in integrating digital storytelling into the classroom. It discusses the teachers' limited knowledge of digital storytelling tools, their concerns about technical difficulties, and the need for professional development opportunities to enhance their skills in this area. It highlights some of the challenges they face, such as limited knowledge and confidence in using technology for storytelling purposes. This was confirmed by participants as shown in the comments below:

"*I don't know how to make a digital story…I don't know if I can be able to do that…I only narrate stories in the classroom.*" (Teacher 2)

"*I'm interested but I don't know how to change a story to be on the computer*." (Teacher 3)

6.4 Benefits of digital storytelling

One factor noted by teachers that would influence them to use digital storytelling during classroom teaching is that digital storytelling has the potential to motivate and engage learners. In one of the earliest studies about students' motivation when using digital devices, Skinner and Belmont (1993) investigated the relationship between teachers' behavior and student motivation. The sample was 144 third through fifth-grade students and 14 teachers. The findings showed that students' motivation and behavioral engagement correlated with the behavior and involvement of the teacher This is because learners are fascinated by technology because they use it daily. Therefore, teachers integrating technology into their curriculum delivery would motivate these learners. Regarding motivation, one reception teacher indicated that:

> "*I think digital storytelling will develop their [the learners'] interest … it keeps them focused on class for a longer period because they use technology every day …They use their parents' phones at home. They grow up with technology … so it will motivate them, help them concentrate and be engaged … yeah*." (Teacher 1).

Another teacher added that they would use digital storytelling during classroom teaching because the visual aspect of digital storytelling may motivate learners. The teacher indicated that:

> "*Today's learners are visual … they [learners] like visual stuff … they like to see things …like the images … this digital storytelling might just motivate them.*"

This discussion shows that today's learners have grown up using technology, integrating it into the classroom may attract their attention. In support of this, Figg and McCartney (2010) show that using digital storytelling as a technological tool attracted learners' attention as they spent more time on tasks.

Digital storytelling has the potential to give learners a voice in the classroom. According to the teachers, a good teacher must be able to give learners opportunities in the classroom for their voices or opinions to be heard. Studies by (Garvis, 2018; Gregory et al., 2009; Niemi et al., 2014; van Der Meij, & de Jong, 2018; Yang & Wu, 2012) view digital storytelling as an approach to enhance children's communication and language skills. The teachers believed that digital storytelling may give learners a voice when teachers involved them in the production. This is evident in one of the participants' responses:

> *"I was thinking we most of the time… we don't give learners in our classes a voice…., as teachers… we don't really know what our children [learners] are thinking or feeling … so am thinking we can use the digital story as a platform where children [learners] have their voices heard because now they are for instance in a classroom – you could have a class do a digital story on any social issue … they present it in class you know… so it could be a way for learners to voice their views, their feelings, and thoughts about social issues or what not, yeah."*

This study revealed that the utilization of digital storytelling in education increases literacy and numeracy skills. A myriad of skills, such as spelling, numbers, writing,

teamwork, or collaborating with students and teachers, can be improved. The findings of a study developed by Yuksel et al. (2011) show that digital storytelling supports student understanding of different subjects related to their interests, increases academic performance, improves writing skills, and develops oral communication abilities and research skills. Additionally, in a study by Warwick and Solomon (2011), teachers observed that digital storytelling helped their students develop vocabulary, comprehension, and sentence structure skills. The uptake of technology improves technical skills (Ohler, 2008). This was confirmed when the reception teachers said:

> "*Stories that I narrate have both numbers and letters, so digital storytelling can enhance literacy and numeracy skills.*" (Teacher 3)
> "*They can learn math and ABC from digital storytelling because usually, the stories I teach have them.*" (Teacher 1)

6.5 Challenges teachers face when using digital storytelling

The study findings revealed that teachers face challenges when using digital storytelling. For instance, they may struggle to find the time and resources to integrate this practice into their curriculum (Hsin & Cigas, 2013). This is confirmed by one of the participants as shown below:

> "*There are insufficient technological tools in this school, even the computer you are given only 30 min to use with young children.*" (Teacher 1)

A qualitative study conducted by Tiba et al. (2015) with fifty pre-service teachers who were divided into five groups for focus group interviews revealed that the lack of technological resources at the schools where they will be teaching would make it difficult for them to integrate digital storytelling into their teaching. Similarly, Ahadiat's (2005) findings showed that one barrier to the integration of technology might be a lack of resources such as technological software and hardware, Secondly, the analysis showed that a lack of self-confidence may prevent pre-service teachers from using digital storytelling.

Another challenge faced by teachers when using digital storytelling in young children is the lack of technical skills and knowledge. Many teachers may not be familiar with the necessary software or devices required for digital storytelling. A study conducted by Hsu and Wang (2011) found that teachers often lacked the confidence and skills to effectively use digital storytelling tools in their classrooms. This lack of technical expertise can hinder the implementation of digital storytelling activities and limit its potential benefits for young learners. Participants mentioned that:

> "*I can't use the computer to teach digital storytelling because… I'm not trained, and I don't have the knowledge to use it.*" (Teacher 2)
> "*I just wish we can be taught how to use it for now I don't know how to use it*." (Teacher 3)

7.0 Approaches and Strategies

The following approaches and strategies can be adopted to enhance digital storytelling:

Collaboration: Collaborative digital storytelling enhances social interaction, shared responsibility, and diverse perspectives (Marsh, et al., 2016). Teachers can facilitate group discussions, encourage peer feedback, and provide opportunities for students to collaborate and contribute their ideas during the storytelling process.

Provision of relevant materials: Providing materials such as images, audio clips, video footage, and background music, and support for teachers can make the implementation easy and critical thinking skills during the digital storytelling creation process (Leu et al., 2013). Teachers can also guide students in selecting appropriate and relevant materials that align with their narrative goals.

Modeling and Exemplars: Modeling and providing exemplars will help teachers understand the expectations and possibilities of digital storytelling, facilitating their comprehension, imitation, and development of storytelling skills (Hobbs, 2011).

Professional Development: Participating in professional development activities can build teachers' confidence, competence, and pedagogical knowledge related to digital storytelling (Robin, 2008).

8.0 Conclusion, Implications of the Study and Recommendations

The study findings showed that teachers' lack of digital storytelling pedagogical knowledge, limited digital technology resources in the workplace, as well as an appropriate training for using digital technology for digital storytelling, are major challenges to teachers' active use of digital technology in the teaching and learning. In light of this, the identified challenges could hinder the use of digital storytelling in teaching and learning process of young children in Lesirane primary school. It is therefore recommended that training support and pedagogical orientation should be provided for early childhood teachers to enable them to address constraining factors influencing the effective integration of digital story telling in teaching and learning in early years. To address these constraining factors, providing training support and pedagogical orientation for early childhood teachers is crucial. This includes training on how to select age-appropriate digital storytelling resources. Policymakers, and school governing body should be actively involved in the provision of digital technology tools and maintenance of organisational structures that support teachers' use of digital story telling in young children.

The findings of this study carry significant implications for various stakeholders in the educational landscape of Botswana. Firstly, for educators, the research highlights the potential of integrating cultural folktales with digital technology to enhance teaching practices and foster a more engaging learning environment. By understanding teachers' perspectives and the challenges they face, professional development programs can be tailored to address specific needs, equipping educators with the necessary skills and confidence to implement digital storytelling effectively. The study emphasizes to policymakers the value of facilitating the use of technology to incorporate indigenous knowledge into the curriculum. Especially in underprivileged areas, this can result in the creation of educational policies that

support fair access to online resources and teacher training. While preparing students for a digital future, policymakers can contribute to the preservation of Botswana's rich legacy by giving priority to the integration of cultural narratives into educational frameworks. There is a need for policy to promote equitable access to digital technology resources across all ECE settings, regardless of socioeconomic status or geographical location.

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