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TEACHERS' PERCEPTIONS OF PLAY WAY STRATEGIES OF LEARNING IN DEVELOPING DIGITAL LITERACY AMONG PUPILS IN PRIMARY SCHOOL

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Abstract:
Early learning and subsequent academic achievement are based on play. Play and early learning have attained and will continue to achieve global awareness. Playing with digital devices can help learners develop digital skills. However, little to no research has been documented on the use of play and the development of digital literacy skills. The purpose of this paper is to explore teachers' perceptions of Play Way strategies of learning in developing digital literacy among pupils in primary school. The study is underpinned by Constructivism Learning Theory. The study utilized a qualitative research method, and a case study research design, and adopted an interpretivism research paradigm. The target population comprised 30 primary schools. 13,500 pupils and 450 teachers. Data was collected from twelve public primary schools in Chesumei Sub County in Nandi County, 12 head teachers, 12 grade one teachers, 480 learners, and one education officer using purposive sampling methods. Purposive in that existing grade one classes were used, the teachers teaching the grade and schools that received the government-donated laptops and tablets. The research instruments that were used were teacher reflective journals and interview schedules. The data was analyzed thematically. The study findings revealed that: teachers perceived the Play Way method of learning as digital skill acquisition, a child-centred approach, and a method that changed the role of the teacher.

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The paper concludes that Play Way method of learning can be used to aid in the development of digital literacy skills in the competency-based curriculum. The paper recommends that schools entrench a system of supporting the teachers to use digital devices for learning and acquisition of 21st century skills. Digital devices have become a valuable resource in the teaching and learning process. The findings of this study are useful in curriculum innovation in Kenya and other parts of the world.

Keywords: teachers' perceptions, digital literacy; Play Way methods; skill acquisition; innovative learning; knowledge creation; facilitators of learning

1. Introduction

Play has been used as one of the ways through which learners learn in a more engaging manner. Play is therefore about creating plausible, alternative worlds that help players perform at their peak levels; being intellectual, imaginative, unique, and inventive (Taylor & Boyer, 2020). Play supports children in educational, social-emotional, language, and self-regulation and builds exclusive functions (UNICEF, 2018). It is through play that children can show their potential and helps the child develop cognitively (Piaget 1952; Vigotsky, 1978). Teachers can use play to develop digital skills (Lockhart, 2010). Play is a universal phenomenon and to date, children have continued to play (Csikszentmihalyi, 1990; Taylor& Boyer, 2020). Child's play is recognized by the United Nations High Commission (Human Rights 1989) as a right of children (Smith, 2013). International Play Association, (2016) recognizes play as recreational and that which can be recognized in children's activities. The play has been of great interest to educators, scholars of child development and education, theorists, psychologists, and therapists (Burghardt, 2011; van Oers, 2013; Wardle, 2007; Bodrova & Leong, 2003). Play takes place in a serious thought-provoking, full of aspects of knowledge, growth, and advancement (Gauntlett, et al., 2010, p. 9).

Play has a lot of benefits. These benefits include; creativity, sentiments of confidence and competence, collaboration and negotiation with others, Adaptability in communication, personality, and tolerance for uncertainty, ability to take risks, a sense of a measure of environmental control, adaptability, Sensorimotor processes, and problem-solving (Canadian Association of Occupational Therapists, 1996; Centre for Science and Policy, 2015; Stagnitti, 2004). With all the literature that has been documented on the importance of play in children in the early years of learning, little has been documented on play and the development of digital literacy (Lockhart, 2010; Staempfli, 2009). Hewes (2006, p. 1) affirms that children's play has not been given a lot of attention and that "*play has been undervalued"*. The main reason is that priority is being given to acquiring academic skills as early as possible (Zigler et al., 2004) and children are given a lot of pressure to accelerate their academic skills (Lockhart, 2010). Play has been pushed to the periphery of the curriculum due to high demands for teacher accountability and outcomes that are measurable (Bodrova & Leong, 2003). Though, Bergen (2009) says that

play enhances learning when children are encouraged to engage in it. Bergen and Fromberg (2009, p. 416-417) assert that play is the "*medium of learning at all ages since many aspects of play improve the process of learning*," and Centre for Science and Policy (2015) concurs. According to teachers, occupational therapists, educational psychologists, and pediatricians, play is important for children's development (Stagnitti, 2004). This paper sought to explore the teacher's perceptions of Play Way strategies of learning in the development of digital literacy

2. Literature

Play is "*an interaction between both the environment and the person that is self-determined, internally managed, and devoid of many of the restrictions of objective reality*" (Burghardt, 2011 p. 5). Children engage with the environment around them through play, and as a consequence, play enables them to acquire new skills and competencies that boost their resilience and confidence and prepare them for future obstacles they may face on a daily basis (Jemutai & Webb, 2019; Hurwitz, 2003). Moreover, "*play encourages an ideal learning atmosphere through which they can perform and grow naturally*" (Bergen, 2009, p. 416). According to Hewes (2006, p. 2), play is a valuable encounter. Children find it to be incredibly fulfilling as well, eagerly seeking it out and finding it to be endlessly engaging. By interacting with the children through play, teachers can concentrate on the children's interests, skills, and educational, sociological, and emotional growth (Taylor & Boyer, 2019). This type of play is typically preferred by children since the teacher demonstrates for them (Edwards, 2017). Play has developmental benefits and can promote learning in a variety of ways (Edwards, 2017; (Keung & Cheung, 2019). According to literature, educators must take part in the play experiences offered to children in order to facilitate subject learning. Together with play, guided play is when a teacher incorporates scaffold learning goals while keeping the focus on the child (Weisberg et al., 2013; Cavanaugh et al., 2016).

According to Weisberg et al. (2013), guided play promotes academic development because it fosters a learning atmosphere where children are encouraged to play and study. A powerful technique for young children is guided play (Weisberg et al., 2013). In addition, preschoolers benefit from an organized curriculum that offers plenty of cognitive stimulation. Children's learning, engagement, and curiosity are emphasized in guided play, which is advantageous for pupil education (Weisberg et al., 2013). Play supported by educators develops in young children by having longer talks and asking open-ended questions that encourage more talking while playing; this improves their language abilities (Taylor & Boyer, 2020). The children show excellent growth in vocabulary. Child-led conversation about words rather than adult-led conversation supports word learning. They demonstrate that language can be fostered in reading and guided play environments (Taylor & Boyer, 2020). With all the positive value of play, little has been documented on how teachers can use play for classroom instruction. A lot

has been documented on the value of outdoor play yet guided play which is an area that aids the development of pedagogical purposes requires further research.

Using technology in the classroom allows pupils to communicate their learning challenges and helps them learn language (Sabiri, 2020). Technology transforms pedagogical settings, which has enabled the actuality of collaborative learning (Kumar & Tammelin, 2008). Technology, according to Sabiri (2020), improves communication between pupils and teachers as well as between pupils and other pupils. By enabling instantaneous learning and quick sharing, technology has eliminated the old restrictions on material access and poor sharing (Luan et al., 2005). The use of technology in the classroom has improved pupil motivation and involvement, leading to greater comprehension (Hawkridge, 2022). Vygotsky (1978) provided compelling evidence that playfulness can result in positive learning and development results. As a result, digital literacy has frequently been developed as part of larger frameworks of 21st-century skills (Binkley et al., 2012). The importance of young learners using a variety of technologies as a foundation for the future acquisition of competencies and skills for functioning and growing up in digital culture, as well as for higher educational pathways, employment, and citizenship, has not, however, been adequately studied. Children begin to acquire knowledge, skills, and attitudes that are crucial to their future development as individuals and as community members at a young age. Digital literacy and 21st-century competencies highlight fundamental elements of growing up in modern societies and receiving assistance from families, communities, and educational institutions in fostering a culture of lifelong learning. First, in the lives of school-age children, digital technologies are a fairly new and rapidly evolving phenomenon. Digital technologies do and will keep playing, a role in instructional reform and innovation (Reich & Ito, 2017). To develop, a lot of work needs to be done for school-going children in order to develop digital literacy competence.

The constructivist theory by Lev Vygotsky (1978) and Jean Piaget (1962) was used in this investigation. Their focus is on collaborative learning through a more knowledgeable other (Wang, 2008; Waweru, 2018). Therefore, it is crucial for teachers to incorporate digital literacy to comprehend that learning can be focused on a person's knowledge extraction and comprehension. This insight would enable the instructor to place more emphasis on the pupils' active involvement and participation in order to foster their creativity and create 21st-century-ready persons (Kalpana, 2014). Hence, constructivism refers to individuals actively creating knowledge through social processes in environments where they are present rather than passively consuming it (Marlowe & Page, 2005). The teacher becomes a facilitator or guide of the learning process (Mwaka et al., 2014). In constructivist learning environments, cooperative learning activities were prioritized (Vygotsky, 1978), where learning is prioritized over teaching or instruction. In this study, learners engaged in group work activities on their tablets. This theory's proponents contend that when students work in inclusive settings where they may exchange experiences and develop shared knowledge, they are more likely to understand concepts. In such a case, the instructor must provide a cooperative, democratic, and

shared-content learning environment that gives the pupils a sense of ownership over their information (Whitebread et al., 2017). This theoretical knowledge was important for this study because it allowed the teachers to promote cooperative learning by sharing devices in low-resource environments where digital capabilities might not be adequate for every learner. The use of digital tools by the pupils was considered to involve them actively in the learning process. The importance of past information and input from other people was also important (Kalpana, 2014). In this study, learning took place through social interaction among the learners with the use of digital tools. Collaboration took centre stage and learning through peers who are more knowledgeable was encouraged. According to Piaget, a person develops through four different, overlapping phases that are tied to age. The learners in this study were in the pre-operational stage 2-7 years of age; a stage that is characterized by playing alongside other children and getting absorbed in their own world through play and learning. Learners at this stage become deeply engaged in their activities and learn through those activities. Relating their play with the tablets used in this study, play using tablets as cognitive tools to learn seemed to contribute a lot to pupils learning (Algoufi, 2016). In this study, learners had to perform play activities on their tablets so as to learn skills. According to constructivist concepts, viewing children as thinkers and viewing children as knowledgeable can be linked to the cognitive domain (Kalpana, 2014). The approaches of constructivist theory in this study targeted teachers' perceptions of play in the development of digital literacy.

3. Materials and Methods

A qualitative research approach was used in this investigation. The methods used to collect data included: teacher reflective journals and semi-structured interviews. The research methods employed in this study encompass data collection and analysis strategies aimed at understanding the effectiveness of play-based teaching for digital literacy. Data collection was via in-depth semi-structured interviews conducted with teachers and students involved in the play-based digital literacy programme. These interviews explored the participants' perceptions and views from the participating teachers in order to explore their experiences of Play Way strategies of learning in developing digital literacies among the pupils. These experiences were examined to uncover new teaching methods using digital devices. According to Cohen et al. (2018), interviews warrant the investigator to gather information that cannot be obtained from observations and enable one to go further into respondents to learn more about their encounters, sentiments, perspectives, concerns, and interests. Open-ended questions during the interview process to best enable the individual to express their views and experiences unimpeded by any viewpoints of the researcher (Creswell & Creswell, 2018). According to de Vos et al. (2011), the most common data-gathering method in qualitative research is the interview, which is regarded as one of the most effective methods for both participants and researchers to comprehend others (de Vos et al., 2011).

The research took place in public primary schools situated in Mutwot zone, Chesumei constituency, Nandi County, Kenya. A total of twelve schools were carefully chosen for inclusion in this study. These twelve public schools were selected due to their close proximity to each other within the same geographical area, facilitating ease of access and movement for the researcher. Within the Mutwot zone, only a limited number of schools had implemented the use of digital literacy in teaching and learning. The selection of this specific zone was driven by the need for significant qualitative research that could provide in-depth insights into the primary concept under investigation.

While several regions in Nandi County were considered, the decision to focus on Mutwot zone was influenced by the desire to optimize the available time and human resources for the study. Furthermore, studies of this nature had not been previously conducted in Nandi County. The schools chosen were those that possessed functional tablets and laptops, making them suitable candidates for achieving the study's objectives. All grade one students in the selected schools were included in the study, resulting in a total sample size of 480 learners. To maintain anonymity, the selected schools were assigned pseudonyms, and the names of teachers were not disclosed.

The selection of grade one teachers and schools was purposive in nature, aligning with the qualitative research approach. According to Campbell et al. (2020), purposive sampling is a strategic method for obtaining a representative sample by deliberately focusing on a population deemed relevant to the study's objectives. The schools were purposively chosen based on specific criteria: they had to be public primary schools located in the Mutwot zone, and they needed to possess functional computer laboratories. The primary objective of the study was not to generalize findings but to gain a comprehensive understanding of the concept under investigation. Schools that participated had functional computer laboratories and were government (public) primary schools, as they were the recipients of free laptops and tablets from the government.

The researcher visited schools located in the Mutwot zone, which had received government-donated laptops and tablets and were fully equipped with electricity. Letters of introduction were presented to school heads to inform them about the study. Grade one teachers at these schools were met individually to introduce them to the play activities facilitated by tablets and to request their participation in the study.

Grade one teachers played a pivotal role in guiding their students through guided play sessions as part of the research process. The use of tablets available in the schools facilitated the implementation of digital play activities. The researcher and grade one teachers dedicated specific time within the school timetable for these activities. Some schools utilized afternoon sessions designated for remedial classes for digital play, while others integrated digital play into one lesson per week as part of the English activity lesson. Play programmes accessible on the school tablets were employed during the study to enhance the digital play experience.

Themes were developed from teacher reflective journals and interview transcripts. Thematic analysis enabled the researcher to identify common patterns, trends, and

recurring themes in the data. Thematic analysis was chosen due to its adaptability and capability to handle large and diverse data sets. This method emphasized understanding data within the context of respondents' perspectives.

Ethical considerations were also observed throughout the study, with schools, teachers, and parents providing informed consent, and participant anonymity being maintained. The study received ethical approval from the National Commission for Science, Technology, and Innovation (NACOSTI) to conduct research in schools.

4. Results and Discussions

Qualitative data were obtained from the journal reflection sheets and semi structured interviews. Themes were created from the study findings on teachers' perception of Play Way strategies of learning in developing digital literacy among pupils in primary school.

4.1 Teachers' Perception of Play Way Strategies of Learning in Developing Digital Literacy among Pupils in Primary School

The findings highlighted three themes in response to teachers' perception of Play Way strategies of learning in developing digital literacy. These are:

1) Digital skill acquisition,
2) Child-centred approach, and
3) Changed role of the teacher.

4.1.1 Theme 1: Digital Skill Acquisition

Participants in this study perceived Play Way method of learning as digital skill acquisition. The participants highlighted that the digital skill acquisition involved three processes, namely

1) Enjoyable learning,
2) Using digital devices to teach, and
3) Knowledge creation.

4.1.1.1 Enjoyable Learning

Enjoyable learning is imparting knowledge that captures the interest of the learners. It is an essential aspect of promoting meaningful, active learning. Teachers in the play strategy had the opportunity to liven up their teaching with play activities on the tablets. Teachers stated that they understood Play Way method of learning where learners acquire skills in an enjoyable manner. Participant 6 narrated that "*it is learning in a more enjoyable manner, having fun as skills are being imparted and it can be played by any age group*." The participant continued to note that digital play encompassed the entire process that aids the learners to learn aspects of technology in a playful manner which is enjoyable to them and their ability to select through the various plays by creating spaces on the screen for them to play. Participant 6 confirmed this: *"This is a different form of play where the children use the tablets to play. They share ideas together and play together in turns in a*

collaborative manner. Pupils learn to search and scroll. What pleased me the most is the fact that learners enjoyed the play sessions so much and they were very cooperative and enthusiastic every time I entered the classroom! This method led to collaborative learning and enjoyment on the side of the learners."

The above explanations and quotations by the teachers explained their perception of Play Way method of learning. According to Abuhamdeh, & Csikszentmihalyi (2012), play interests children so that nothing else seems to matter. Play with digital devices became an interesting approach to learners. The ability of the learners to interact freely and share skills learned together. Learners developed skills on tablet use in a way that was interesting and enjoyable to them. The children were able to open the tablets, search, and play. The next sub-theme was on using digital devices to teach.

4.1.1.2 Using Digital Devices to Teach

The participants were eager to use a new approach to teaching where they used tablets as a new approach to classroom instruction. Participant 6 reiterated by saying succinctly that Play Way method of learning is "*the ability of a learner to demonstrate creativity in the digital play while using the tablets*. *The capability of the learners to identify buttons in their tablets that are used to direct the plays like the curser. Identification of the tools for drawing and painting on the tablet and learners' ability to arrange objects correctly*."

Participant 8 added by saying "*Play Way method of learning is cooperative learning through the use of digital tools."* Participant 10 explained it as "*the introduction of the tablets to the learners since they are from pre-primary so that they can know how to start using it for learning and learn how to shut down*. She added that through Play Way *learners get to know the usefulness of the tablet*." The statements were a clear demonstration of information empowering and she continued to say, "*it has developed a chance for technology advancement."* In the journal reflection sheets, Participant 9 explained Play Way method of learning as a very good approach to teaching digital literacy. She said, "*I enjoyed the entire process the skills that the learners demonstrated, and how enthusiastic they were every time I entered class"* (Participant 9). Digital play enabled the learners to have an interest in technology hence the interest of learning and using the tablet was portrayed. Learners searched for information and began the plays by themselves. This developed knowledge of tablet use. The next sub-theme is on how digital play was perceived as knowledge creation.

4.1.1.3 Knowledge Creation

Play was seen to have led to the advancement of knowledge and expertise on how to handle digital devices. Learners developed high concentration during the play sessions and nothing else seemed to matter. The ability to incorporate slow learners in an activity and let all the children get access to a tablet through group work activities. In an interview with Participant 4, she clearly stated that Play Way refers to *"having the basic skills - opening, searching for games and search for subject areas for the learners." "Basically, I see tablets as tools that make it simple for teachers to combine the learning areas into manageable units so*

that pupils can participate in the teaching and learning." how to discover information by themselves. While participant 4 said that this type of learning has "*empowered and assisted the learners in their learning."* The digital Play Way method of learning became an enabler towards the acquisition of digital skills. Whenever they got stuck, they sought assistance from their peers and further assistance from the teacher. They developed a sense of independence during the digital play sessions. Digital Play Way opened new possibilities and different ways of thinking, pupils continuously collaborated together resulting in peer learning, they developed creativity through playing on the screen, also pupils found interesting information that was both audio and video aroused their interest, and finally felt they had some control over what they wanted to do. The above-mentioned aspects can be articulated in a manner that teachers and learners create knowledge through mutual understanding, a method that was seen as empowering to the learners (Abu Zahra, 2020). Pupils who are digitally literate grow up to be more conscientious and compassionate adults (Raheem et al., 2021). The learners were seen to be content creators and engaged actors that many hoped for (Fluck, 2019). Vygotsky's (1978) theories of play are seen as a leading activity in cognitive and imaginative development (Drew, 2019) where children get to interact with content (Rahman, & Yunus, 2020).

Hence, one can conclude that digital play has been experienced as a way that learners can create knowledge that is empowering to them. This enhanced the enthusiasm and interest of pupils taking part in the play activities. All of the aforementioned factors emphasize the critical function of empowerment as a motivating factor in knowledge generation. According to Keller (1987) and Bandura's key work, teachers must feel competent and confident in order to feel empowered. As a result, confidence and competence became crucial motivating factors for knowledge creation in this study.

4.1.1.2 Theme 2: Child Centred Approach

A child-centered method involves putting the child at the conceptual heart of the educational process, where they actively participate. Digital play was perceived to be a child-centered approach. Learners owned the learning process and discovered information on the tablets on their own. They developed skills on how to handle the tablets during the play process and after the play process. They took turns to play developing in them a sense of responsibility. Teachers perceived the digital Play Way method of learning as child-centered approach that encompassed the following;

1) Reverse of traditional approach,
2) Innovative learning,
3) Motivational learning.

4.1.1.2.1 Reverse of Traditional Approach

In this study, the perception of Play Way method of learning was the "reverse of the traditional approach" which can be used with big classes. Learners can be grouped in big classes and can work independently on their own. Data from the journal reflection sheets

on how teachers perceived the digital Play Way strategy gave a response that learners were able to converse with each other and were engaged participants. In terms of teaching and learning, the teachers believed that the digital play approach would entail that: the pupils' role in using digital gadgets would be to work on their own, while the teacher would facilitate and watch over them. The teacher provided instruction to the pupils, and they worked as a team toward searching and starting the plays. The instructor assisted pupils in doing information searches and directed learners on their plays. Learners were seen as having a distinct function from the conventional passive listening function to active and hands-on learners. Participants' comments that learners in the digital play strategy became: knowledge discoverers and finders, skills practitioners, readers, active and hands-on participants, reporters, and judges.

The majority of the participants specified that their learners enjoyed working on their own during digital play sessions, as learners are fond of tablets. As they searched, they realized that there were other sources of information besides books. Learners work with tablets finding information without waiting for the teacher to give information. The availability of games and plays including other information to be read as reading was encouraging (Participant 10). Participant 7 stated that Play Way method of learning "*helps children become independent since they learn things on their own without you, the teacher, telling them*." It makes them understand better and the information learned is retained. Teachers' perception of digital play strategy enabled them to realize that information can not only be found in books but also in digital devices where knowledge can be imparted in an enjoyable manner. This aspect became a stance that is supported by Rahman and Yunus, (2020) who stress that the implementers of an activity are the beneficiaries when the activity is performed. Learners also had access to different sources of information. Participants said that their pupils will love digital play since they like to play on tablets, as was already mentioned. The participants agreed that it is crucial for pupils to understand that there are other informational resources besides books. Berger et al. (2018), and Ferguson and Braten (2018) have severely opposed to this idea of the textbook as the sole source of information, regarding it as the only so-called authentic source of knowledge. Because of this, it may inspire pupils to study a greater variety of sources instead of simply paper-based printed books if they can learn from a young age that knowledge is not only restricted to textbooks but also that other sources, including digital sources, offer various types of knowledge. Knowing that there are knowledge sources other than conventional paper books may operate as a "push factor" to organize, seek, and organize information in new ways. Learners and teachers as implementers of digital play experienced digital literacy as play

According to Triberti's et al. (2021), the notion of "*optimal flow*," the aspect of "*playfulness*" is another critical ingredient that might boost motivation and enthusiasm for computer-related tasks (Csikszentmihalyi (1990, p. 4) as cited in Liu and Csikszentmihalyi (2020). Optimal flow is "*the condition wherein individuals are so absorbed in an endeavor that none appears to matter; the sensation is so pleasurable that individuals will engage in it even at significant expense, for the sole purpose of engaging in it*." In certain sessions,

the researcher had to inform the participants that the play strategy had to come to an end. The play sessions had reached exhaustion, which made it evident that some needed more time to continue, an observation which supports Abuhamdeh, & Csikszentmihalyi's (2012) notion of play which pupils show a lot of concentration on the activity. The next sub-theme is the playing way method was perceived as an innovative way of learning.

4.1.1.2.2 Innovative Learning

Innovative learning is the process of creating a learning environment where learners learn about new things regularly. Innovation as a factor was emphasized by Participant 9. She said: "*Tablets made my pupils eager to learn new information. They made sacrifices to attend afternoon classes and also when it was raining when the teachers could not attend the class and talk because of the noise, they requested for the tablets to explore by themselves because to them it was so wonderful to be just in front of a tablet.*"

The tablet-based project gave positive attributes as the medium of the study was the tablet. The medium has a significant impact on innovative ways of teaching and learning. The positive impact of the tablet as a medium of innovation is also highlighted by the response of participants at the end of the digital play, which participants liked and enjoyed working with the aid of a tablet.

The fact that the activity helped pupils to be autonomous as they find out information by themselves - not being taught by a teacher the information learned stays better in their brains when they uncover it on their own, was effectively summarized by a participant during her interview. The participant's response appears to be in agreement with Milanovi and Cvekovi (2021), who contend that teachers are likely to attempt to apply a new strategy at their schools if they can personally experience or observe the technique's efficacy. According to this, it is clear that the digital play method has a relative advantage because it is relatively simple to prepare and put into practice. This supports Rogers' (2003) claim that the aforementioned factors must be present for a practice to change or for a technological invention to be adopted. The participants stated that the digital play approach is in line with the Competency Based Curriculum requirements and the participants also indicated that the digital play approach was not difficult to implement as long as the tablets were fully charged. They were exposed to innovation, gained practice-based knowledge, made observations, and had positive experiences with digital play, all of which had a positive and motivating effect. The digital play was inspiring through having information at learners' fingertips, digital Play Way prepared them for change through the acquisition of 21st century skills, digital Play Way enabled them to become facilitators who could teach others how to play on their own tablets, digital play created interest-making learners own the learning process, digital play enabled them to explore new horizons through examining their methodologies and provided them with computer skills.

These findings are in agreement with Roger's (2003) ideas that innovations are available to be explored or to be tried out such as the innovation on the digital play. Digital play could help shift teaching and learning away from the traditional method and

towards a more active, constructivist method. Overall, the data suggest that the digital Play Way method was an innovative approach to learning that empowered learners with the acquisition of digital literacy skills. The data from this study demonstrate that the digital play teaching technique has had a good impact on instructors' methods of instruction and pupils' capacity for learning, despite the idea that teachers teach in the same manner in which they were trained (Tondeur, 2020). This implies that the teachers found the process of digital play to be important because it opened a new method of teaching for the participants. The approach lends itself to guiding learners' experience into play as learning (Abuhamdeh, & Csikszentmihalyi 2012; Triberti et al., 2021). Therefore, it is indicated that the digital play approach could have a big impact as a motivator and an educational tool which is an innovative source for the development of competencies; especially within public primary schools in Kenya. Hence, the digital play technique could help tip the resource scale and simultaneously promote the digital literacy skills of learners. The tablet as a resource created an aspect of innovativeness for the learners and teachers who developed the skills of technology.

According to Malone and Lepper (2021), not all pupils have the same learning preferences. As a result, wherever possible, one should endeavor to adapt all learning preferences or rotate the forms of learning strategies to serve all pupils. In light of the aforementioned information, Mifsud (2021), and Abu Zahra, (2020), debated whether media influence learning once more. The tablet as a medium of learning became a motivating factor in the sense that the newness of the method potentially leads to the "fingertip effect," which is the idea that "*when we put information at learners' fingertips, they take the opportunities*" (Perkins & Salomon, 2018 p. 145). The next sub-theme is on how play was perceived as a motivational way of learning.

4.1.1.2.3 Motivational Learning

Motivational learning is essential for learning and success Motivation initiates and sustains behavior toward a goal. Motivated pupils are those who are more driven to learn persevere longer, put up stronger effort, study more thoroughly, and achieve better in class. The digital Play Way method was also perceived as motivational. Participant 9 in her interview said that; the tablet became a valuable resource to the learners and it was so patient and could never yell at them: "*Once the learner completed a task correctly the tablet could reward the child and awarded marks attained and congratulated the child with a remark, excellent! This motivated the learner a lot and they wanted to do more activities."* They took pleasure in learning by doing. As a result, Perkins and Salomon (2018); Forutanian, (2021) opine that when a method is new the approach provides motivation for learning which adds value to the learning process. Participants also pointed out that digital play did assist learners in remembering more about a topic, learning new information, which concurs with the findings of Lajoie & Sharon (2013); and Lawrence (2018) since they feel that learners' usage of artifacts, particularly auditory visual content, helps in this respect. It has been previously demonstrated that Tondeur (2020), has also stated that artifacts with audio-visual could lead to seeing knowledge as something that is not just based on

paper, but also that the practice and utilization of digital devices could also build new critical cognitive abilities such as organization skills, as well as reflection skills. Rogers (2003); Lee (2021); and Li et al. (2018) argue that when a resource that is perceived to be new is used for classroom instruction its usefulness becomes worthwhile. These worthwhile resources are powerful motivators (Mumtaz, 2000; Milanović & Cveković, 2021). The participants acknowledged their appreciation for the digital Play Way strategy. The following section discusses on the third theme of how digital play was perceived as changing the role of the teacher.

4.1.1.3 Theme 3: Changed Role of the Teacher

The digital Play Way method changed the role of the teacher. According to the contributing instructors, this position of the teacher can be seen from a conventional `standpoint to a constructivist design perspective enhanced motivation and interest. The teachers seized to be a sage on stage to a guide on the side**.** Teachers' perception of play changed the role of the teacher and accentuated the following:

1) facilitator of the learning process,
2) changed educational beliefs.

4.1.1.3.1 Facilitators of Learning

A teacher who doesn't follow the conventional model of instruction is called a facilitator of learning, and their role is to support and encourage pupils while they study on their own. The teacher in this study played an important role as an educator who must be very alert and go around and see to it that there is no learner who is lost. Teachers perceived Play Way method of learning as a changed role of the teacher who guides the learning process. This was narrated succinctly by the words of Participant 1, *"Through the teacher's guidance learners were capable of using a tablet and independently locating information and sharing learned information with each other."* Moreover, learners were viewed as inventors and practitioners of skills, readers, active and hands-on pupils, discoverers and finders of knowledge, Reporters, and Assessors. The above is in line with the critical outcomes of the Competency Based Curriculum, Ministry of Education (2016), and constructivist principles. Data from the interviews showed that the participants thought the instructor's position would need to alter from being a sage lecturing on stage to a mentor by the side monitoring learners' progress (Blum-Ross & Kumpulainen, 2019). Digital learning provided learners with opportunities for peer learning as the teacher facilitated the process. Korkut (2012) agrees with Sabiri (2020) that digital learning made it feasible for teachers to provide learners with individualized comments and direction and it greatly improved both teaching and learning in other ways such as learning language and communication skills (Blum-Ross, & Kumpulainen, 2019). Digital learning enabled the learners to repeat the activities on the tablets until they got mastered. Digital literacy lowered barriers to better learning and teaching traditional ways of teaching (Sabiri, 2020). The next subtheme on the teachers' perceptions of play is that play was seen to have changed the educational beliefs.

4.1.1.3.2 Changed Educational Beliefs

Understandings or convictions regarding elements of education, such as teaching and learning, are referred to as educational beliefs. These convictions are developed early in life, are ingrained, and are more difficult to alter. According to Rubach and Lazarides (2021), educators' educational ideas influence their professional decisions. So, one can contend that a particular set of educational beliefs is deeply ingrained in educators' planning, pedagogical choices, and teaching methods. Rubach and Lazarides (2021) contend that educators frequently instruct pupils in the same manner in which they were instructed. So, it is believable that educators' educational attitudes and classroom practices are significantly influenced by the way they were taught in school and throughout their post-secondary to professional studies. Similar arguments are made by Banoğlu and Gümüş, (2022), Boorman, (2019), and Cuban (2001), who claim that teachers are resistant to change and that this is the reason why digital learning is not widely used in schools. According to Hoareau et al. (2021) and Gamache (2002, p. 286), practice is either overtly or covertly embedded in a certain theoretical framework. This means that since people's views are deeply ingrained, transformation is a challenging process (Fullan, 2003). Participants stated that because the digital play strategy is novel and engaging, it has the ability to alter the conventional method of instruction. This answer is in line with Milanovi's et al. (2021) and Li's et al. (2018) argument that adopting something new and witnessing its success may have an impact on adoption, which in turn affects the process of change.

As Participant 11 simply put it, "*the activity taught me that long gone are the days of providing pupils all the knowledge*," the results clearly indicate that this project has had an effect on the contributing educators' educational ideas. They need to explore as well. This reaction demonstrates the need for additional instruction rather than "*teacher's talk in front of the class*" when using the digital play technique. This kind of change is referred to as "*being a mentor on the side rather than a sage on the stage*" (Blum-Ross & Kumpulainen, 2019).

5. Conclusions and Recommendations

Teachers' perceptions of Play Way method of learning in developing digital literacy were explored. Play Way method of learning became an enabler in the development of digital literacy skills. The approach was perceived as digital skill acquisition, that was child-centred and the role of the teacher changed to a facilitator of the learning process. The paper recommends that the schools entrench a system of supporting the teachers to use digital devices. These digital devices have become a valuable resource in the teaching and learning process.

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Conflict of Interest Statement

The authors declare that they have no financial or personal relationship (s) that may have inappropriately influenced them in writing this article.

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