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Using Digital Play in Teaching Early Childhood Education

By

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عندما تصبح الأجهزة الرقمية جزءًا من الحياة اليومية ، يختبر الأطفال الصغار فرصًا جديدة للعب (O'Mara & Laidlaw,2011) ، في عام ٢٠٠٨ ، كانت ثورة التعليم الرقمي دافعًا لتحويل التدريس والتعلم من خلال التعليم الرقمي وركزت على جميع جوانب التعليم من تدريب المعلمين والتعلم المهني إلى الموارد الرقمية وتصميم المناهج الدراسية والمشاركة المجتمعية (المجموعة الاستشارية للتعليم الرقمي ، ٢٠١٢). تعتبر التقنيات الرقمية حاليًا جانبًا ضروريًا للتعليم في مرحلة الطفولة المبكرة (NAEYC,2012) ، وفقًا لإدواردز (٢٠١٣) ، زادت مستويات مشاركة الطلاب من خلال استخدام التطبيقات التعليمية والكتب الإلكترونية التي تم العثور عليها ليس فقط لتقديم المعلومات بطريقة مفيدة ولكن أيضًا بطرق مثيرة للاهتمام. على الرغم من تأثير استخدام التكنولوجيا في التعلم القائم على اللعب في مرحلة الطفولة المبكرة في تحسين تعلم الأطفال ، إلا أن الأبحاث توثق أن معلمي الطفولة المبكرة هم العامل الرئيسي في تعلم الأطفال عندما يستخدمون التكنولوجيا في التعلم القائم على اللعب.

الكلمات الأساسية: اللعب الرقمي ، التكنولوجيا ، التعلم القائم على اللعب ، التدريس والتعلم. التطوير المهني. التعلم المهني.

Abstract

As digital devices become part of everyday life, young children experience new playing opportunities (O'Mara & Laidlaw, 2011). In 2008, the Digital Education Revolution was a driver for transforming teaching and learning through digital education and focused on all aspects of education from teacher training and professional learning to digital resources, curriculum design and community engagement (Digital Education Advisory Group, 2012). Currently digital technologies are now considered a necessary aspect of early childhood education (NAEYC, 2012). According to Edwards (2013), the students‘ engagement levels have increased through the use of educational applications and E-books which have been found to not only present information in a meaningful way but also in interesting ways. Despite the impact of using technology in play-based learning in early childhood to children‘s learning improvement, research documents that early childhood teachers are the main factor in children's learning when they use technology in play based-learning.

Key words: Digital play, Technology, play-based learning, Teaching and learning. Professional development. Professional learning.

Introduction

In the rapidly evolving technological world teachers can feel overwhelmed with the choices and range in the types of educational technologies available. The Victoria State Government, on their Education and Training website (2018) described digital technologies as –electronic tools, systems, devices and resources that generate, store or process data‖ (n.p.)‘. Digital learning occurs across all learning areas and domains. It encompasses the application of a wide spectrum of practices including: blended and virtual learning, game-based learning, and accessing digital content (Karen, 22018). In 2008, the Digital Education Revolution was a driver for transforming teaching and learning through digital education and focused on all aspects of education from teacher training and professional learning to digital resources, curriculum design and community engagement (Digital Education Advisory Group, 2012).

By using technology in delivering their lessons, teachers have been presented with more innovative methods of teaching which have in turn created a more engaging learning environment for these early learners. However, the use of technology in teaching Early Childhood Education has been considered by some researchers as a threat to the imaginative capacity of young children‘s play (Singer & Singer, 2005). Nevertheless, more people are still in favor of the idea of using technology in classrooms thus increasingly challenging the opposing teams. Currently digital technologies are now considered a necessary aspect of early childhood education (National Association for the

Education of Young Children and the Fred Rogers Centre for Early Learning and Children‘s Media, 2012). According to Edwards (2013), the students‘ engagement levels have increased through the use of educational applications and E-books which have been found to not only present information in a meaningful way but also in interesting ways. According to NAEYC (2012), technology can promote effective learning and development when used intentionally by early childhood educators. There is a growing body of research related to the ways in which teachers integrate Information and Communications Technology into their everyday teaching. However, research suggests that teachers may find it challenging to integrate ICT in their classroom practices (Gray, Thomas, & Lewis, 2010). Hence, more teachers should get training.

This a brief review of literature highlights the impact of using digital play in ways that foster student learning. I focus on both aspects positive and negative impacts of digital play in early childhood education. As such, this brief review of literature provides early childhood teachers with a useful frame for the attainable results through integrating technology with play-based learning.

Using digital play has become one of the fastest moving trends in early childhood education, and it represents an alternative to traditional learning. Research is needed to ensure educators‘ pedagogy with technology that is based on evidence and provides learning experiences that promote young children‘s cognitive and socio-emotional development (Zabatiero et al., 2018).

Literature Review

Digital Play in Early Childhood Education

A study carried out by Edwards and Bird (2015) presented a detailed framework of how young learners understand the use of technology through play. This study is informed by the fact that digital technology is increasingly being appreciated as a very important tool in early childhood education. They found that children were able to learn some skills using all the devices provided to them. This was established through the epistemic play where the learners exhibited some abilities like exploration, problem-solving skills and acquisition. This confirmed the fact that the participants could use technology to solve some problems as they could deliberately control some functions to do perform specific tasks like playing a game.

Furthermore, Marsh et al. (2016) study focused on how using apps in enhancing creativity among pre-school children in the UK. The author's main goal was present that if the apps are effectively used, they can help promote creativity and play among young children. According to the authors, this is because when the children use the devices, they learn some problem-solving skills and also identify other interesting activities.

According to Marsh et al. (2016), –it would be possible, and even desirable, to engage young people in critical reflections on their own play across digital and non-digital spaces in order that the definitions could be refined further and be built on participatory approaches to the development of analytical tools.‖(p.250). Hanes, information is easily retained when using educative mobile applications, most of which apply the integration of multimedia features to engage the child.

Early Childhood Instruction: Using Technology in Teaching

There are new methods of learning and teaching as well as new strategies about how to integrate technology in teaching young children. Technological tools can make learning more accessible and more fun. Thus, teachers who work with children do not deny the effects of using technological tools to accelerate learning. Xinyun and Nicola (2017) examined the preservice teachers use of ICT and their ability to integrate ICT into their teaching practices in preschool across the Hong Kong Special Administration Region (SAR). They found that pre-service teachers used ICT mostly in the context of a teacher-directed approach to learning. Moreover, their findings indicate that school factors, such as school-level curriculum, ICT infrastructure, and the mentor teacher‘s teaching philosophy exerted a powerful influence on the way that preservice teachers were able to use ICT in their teaching practicum.

According to Karen, Coral and George (2018), –the success of digital technology curricula in EC education is not so dependent on the availability of technology as it is on appropriately designed activities and supporting materials integrated into learning environments by well-informed and prepared educators.‖ (p.260). This study establishes the trends of integrating digital technology in early childhood education with a focus on the relational issues and challenges in educational practices.

The study is informed by the fact that technology has continued to advance and has become a very important component in play-based learning programs. With that view, the study demonstrates how teacher training approaches can be adopted to enhance digital outcomes among the learners. The researcher also talks of how the educators can develop certain competencies in digital technology. Most importantly, educators must have a positive attitude and self-confidence towards technology. In so doing, Edwards (2013) drew that the only way that early childhood teachers can bridge the gap in curriculum, and technology is by understanding the cultural context of the children and participation, and how they relate to development of creative thinking and problem-solving skills. Additionally, Yelland‘s (2011) suggestion that new concepts of play are necessary to help teachers address the problem of technology integration in early childhood education.

Guidelines for Technology Integration in Play-Based Learning in ECE

In order to integrate technology into early childhood education, teachers need to consider the ways in which technology fits within play-based learning. I organized this section to illustrate the impacts of using technology in teaching early childhood under two aspects: (1) the impact on teachers‘ professional development (2) the impact on students' professional learning.

The Impact of Using Technology on Teachers' Professional Development

In the field of ECE, continual professional development for teachers is important. As a result, researchers are always disclosing new and effective strategies to enhance children learning. Many educators lack the required knowledge and confidence in handling technology related areas. This is because they do not have a better understanding of some ICT skills. However, teachers can develop confidence and essential concepts that can inspire meaningful learning in a class environment by using technology due to its importance in understanding and regulating the learners' needs. For example, technology can be used in aligning children's digital experiences and knowledge with play-based learning experiences. Teaching by using technology can promote intentional teaching. According to Karen, Coral, and George (2018), –the success of digital technology curricula in EC education is not so dependent on the availability of technology as it is on appropriately designed activities and supporting materials integrated into learning environments by well-informed and prepared educators.‖ (p.260)

Thus, there is a need to check on how teacher training is being done with the objective of disclosing how play-based learning can be incorporated to enhance students' outcomes. Preparing teachers on how to use technology effectively can help students interact with the real world and easily learn it. Therefore, teachers should to make play-based technologies more available. By doing so, these teachers allow the learners to explore the world by themselves, and develop good masterly of some skills; thus, young children learn some innovative ideas as they engage with technology.

Notably, teachers must consider both the positive and negative effects of using technology when they are preparing to integrate digital resources in their lessons. When teachers integrate technology in play-based learning correctly, it can increase the social and learning skills of students. To reduce the negative impact of digital resources on early childhood development, teachers could reduce their use of technology by choosing to teach in specific hours without the air of digital resources.

Teachers are considered one of the main factors affecting the children's success in their school and in their life alike. Hence, investing in early childhood teachers' professional development will benefit teachers and students as well. Teachers need professional development in the pedagogical application of technology to improve teaching and learning. Experience around the world in developing, industrialized, and information-based countries has shown that teacher training in the use and application of technology is the key determining factor for improved student performance, in terms of both knowledge acquisition and skills development enabled by technology. Educational technology is not, and never will be, transformative on its own—it requires teachers who can integrate technology into the curriculum and use it to improve student learning.1 In other words, computers cannot replace teachers—teachers are the key to whether technology is used appropriately and effectively (Delannoy, 2000).

The Impact of Using Technology on Students' Professional Learning

Digital play has become one of the fastest moving trends in early childhood education, and it represents an alternative to traditional learning. Research is needed to ensure educators‘ pedagogy with technology is based on evidence and provides learning experiences that promote young children‘s cognitive, and socio-emotional development (Zabatiero et al., 2018). According to the NAEYC (2012), statement, using technology should be complementare and supports the learning that occurs in the classroom. For instance, technology can enhance young children‘s learning, particularly in reading and writing skills. Technology is also associated with increased motivation, student learning practices, and the development of social skills. Furthermore, the use of technology benefits children who have disabilities to facilitate their learning.

Aldhafeeri et al.(2016) shared that children‘s interactions and experiences with digital devices can no longer be ignored as they are an integral part of their repertoire of activities. In fact, Wood (2014) stated that –the traditional ideology of play as a mode of children being physically active needs to be reconceptualized as children create ‗their own playful meanings, symbols, and practices, which are imbued with cultural significance and result in self-development and self actualization‖ (p.14).

To this end, technology must be part of a professional learning system in ECE and should be performed within a cycle of continuous improvement. The integration of technology with traditional education approaches leads to higher academic achievement in a variety of aspects such as thinking skills, creativity skills, and social skills. In other words, digital play helps the students to learn more quickly and with greater understanding.

Conclusion

In conclusion, due to the changing times we live in today, it is important for teachers to start considering the use of technology in their classroom. Even though there are different research studies carried out for and against the use of technology, I believe that the benefits of using digital resources and technological educational tools in the early childhood education classrooms outweigh the disadvantages. Some of the benefits include increased student concertation, increased student engagement, increased student participation due to their increased interest. In addition, digital resources and technological educational tools provide the students with better information illustration through different graphics and visuals, all of which are created specifically for young children. With that in mind, moderation and careful implementation should be considered when using technological tools or digital rescores in the classrooms. In other words, teachers should not plan all their lessons to use devices as the early childhood education children need to get an all rounded education; an education that develops their minds and bodies alike.

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