ENACTING DIGITAL INTERACTIVE MULTIMODAL ENGLISH BOOKS FOR ALPHA GENERATION TO REINFORCE DIGITAL LITERACY

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Abstract

As teachers should assist students achieve higher levels, the quality of Teacher Professional Development (TPD) has become an increasingly important educational concern. Teachers are expected to perform according to new standards and educational institutions are calling on teachers to reform. Furthermore, a teacher's performance is determined by how teachers teach subject matter content in specific contexts employing specific instructional methods and technology (TPACK). Consequently, the implications of how technology is used become quite significant. The genesis of this conceptual based research is a need for providing kindergarten and primary school teachers, as well as parents of Alpha generation students to be able to create an engaging digital multimodal book i.e. book creator with English learning activities. As the children are digital natives, they prefer digital book to the conventional ones. The numerous media integrated in the digital interactive multimodal book can activate all five senses while reading it, making learning more meaningful. This paper gives a conceptual based research on the subject since currently there is lack of studies on the use of digital books for young learners in Indonesian settings.

Keywords: **multimodal digital interactive English book, Alpha generation**

INTRODUCTION

The concept of the Industrial Revolution 4.0 allows us to use modern science-based (AI, Robot, Iot) for human needs with the aim that humans can live more comfortably. Unlike the previous concepts, this one uses modern technology but still relies on humans as its main component. In Society 5.0, the main component is humans who are able to create new value through technological developments that can facilitate human life. Facing the era of Society 5.0, it requires 6 basic literacy skills such as data literacy, namely the ability to read, analyze, and use information (big data) in the digital world. Then technological literacy, understanding how machines work, technology applications (coding, artificial intelligence, machine learning, engineering principles, biotech). Finally, human literacy, namely humanities, communication, and design.

In line with this, the awareness of the importance of mastering English led to efforts to learn and master the language as early as possible. In the learning process, appropriate and effective approaches and

strategies are needed. Success of learning English in early childhood is strongly influenced by the ability of teachers to present an interesting and fun teaching and learning process for children.

Listening, speaking, reading, and writing are all skills that should be addressed when learning a language. Children can learn to talk by copying, watching models, both peers and older people, and practicing with adult supervision. In general, speech growth is a never-ending process, and the quality is improving all the time.

A preliminary study in some kindergartens & primary schools in Cimahi, West Java, Indonesia showed that teachers were still less proficient in teaching English to children so that the teaching-learning process still did not facilitate the multiple intelligences of students. The teachers agreed that it was necessary for them to be equipped with English teaching books for children to be more competent and creative in managing teaching-learning process (Cahyati et al., 2019) (Cahyati & Rizqiya, 2021). Related to the phenomena above, teachers need to find creative ways to manage learning for young learners. One of them is to increase interest and motivation in reading through classroom learning books that are connected to the outside world (Khotijah, 2016) Here, the teacher's role is very important in developing and maintaining students' positive attitudes towards learning through attractively designed books.

In the current era of Society 5.0, more and more developed countries are changing the format of conventional books into contemporary books as learning media in various schools, from kindergarten to university. Books are no longer in written and picture formats, but have evolved into books with interactive digital multimodal formats. The essential components of

printed books, such as text, picture, or graph, are included in a digital book. These components encompass music, animation, video, and hyperlinks, allowing digital books to convey more information than printed books.

The goal is to increase student literacy. The term literacy has undergone an expansion of meaning, which was originally only related to learning to read or write traditionally, to the ability of students to learn, understand, and interact with technology.

When technology intervenes in the field of literacy, what needs to be considered is how the application of technology plays an important role in improving abilities and has a positive impact on student learning. One technology application that has been widely used in developed countries is the use of digital interactive multimodal books ((De Jong & Bus, 2002) (Brown, 2016).

As there is lack of studies on the use of digital books for young learners in Indonesian settings, this study provides a conceptually based research on the issue.

Scope

This study focused on how digital interactive books may contribute in the establishment of teaching-learning English to children of Alpha generation and reinforcing their digital literacy. Yet, this is a Conceptual based research, it is envisioned that this initiative will be developed in the future.

In line with this, the scope of this research is as follows: The research subjects were English teachers in kindergarten and primary school, parents, and students. While the aspects of this digital interactive multimodal English book integrate spoken or written words and other modes, such as visual/image, movement, sound/audio (oral & music), videos, poetry, and websites.

The Significance of the Research

The importance of this research are: giving contribution to contemporary English learning media in kindergarten and primary school, equipping teachers and parents to be able to assist children more effectively and more variedly according to the development of the Alpha generation, and presenting recommendations in the implementation of English language learning.

Eventually, the research can inspire hesitant readers, reinforcing learning for children with specific educational needs, and reaching parents with poor literacy and little print resources but have smartphones or tablets.

DISCUSSION
Constructivism Theory

As we all understand, technology evolves with the times, and even children are becoming more comfortable with it and using it for learning. There are two types of learning in this case: learning from technology and learning with technology. Learning from technology implies that technology is used as a tool to transmit knowledge (knowledge transfer), but learning with technology implies that technology is used as a tool to build knowledge, allowing students to actively participate in using technology (Niederhauser, 2013); (Suhendi & et. al, 2018).

If we explore the theory of digital books in depth, either through its meaning or purpose, then in the end we will arrive at a constructivist learning theory from an American philosopher, Dewey, and a Swiss educator, Piaget, which explains that children can actively build new knowledge independently, whether based on their previous knowledge or experience. The basis of constructivism theory is that children are the ones who have to do exploration and discovery in a lesson. This theory also asserts that learning must be authentic and in accordance with real-life experience (Cahyati & Rizqiya, 2021); (Suhendi & ., 2018); (Gogus, 2012).

Constructivism theory attempts to provide children power, autonomy, problem-solving skills, and the ability to use real texts. Student-centered learning is more relevant than teacher-centered learning in this current period, because the flow of knowledge through the internet is widely accessible. As a result, when teaching young learners, teachers should bear in mind that instructional materials should be based on situations that students are familiar with.

Alpha Generation in Society 5.0

Children as the Alfa generation are considered as Digital Native. They exposed to digital technology since very young age. Therefore, they tend to have the potential to outperform previous generations in terms of intelligence. Because of the numerous media integrated in the digital interactive multimodal book, students can activate all five senses while reading it, making learning more meaningful.

Society 5.0 is a concept of a human-centered and technology-based society in Indonesia that signifies "freedom to learn." Children were the emphasis of education in the twentieth century, with information coming from books and a concentration on local and national locations. Every child is a member of a learning community in the twenty-first century, and learning is received from a variety of sources, including books, the internet, and other platforms.

In the era of Society 5.0, teachers are learning material providers, and educators are the inspiration for the growth of student creativity. Educators act as facilitators, tutors, inspirations and true learners who motivate students to "Learn Independently" so that they are able to answer the challenges of the world in the 4.0 industrial

revolution era and 5.0 Society (Khairani, 2016).

TPD & TPACK

As teachers face increased scrutiny and pressure to assist students achieve higher levels, the quality of Teacher Professional Development (TPD) has become an increasingly important educational concern. Teachers are expected to perform according to new and changing standards, and educational institutions are calling on teachers to reform practices through teacher-learning activities ranging from workshops to seminars to classroom modeling, while debates and tensions over the scope, form, and focus of TPD continue (Margolis et al., 2017). As technology and the knowledge that comes with it become more commonly accessible, its integration into the curriculum and pedagogical application become increasingly essential to educators.

Since the main objective of any education reform should be to enhance student achievement, any reformative method should first realize the importance of teachers in encouraging academic achievement. Teachers also play a pivotal part in education since they are lifelong learners. English teachers are increasingly in need of Professional Development (PD) in order to take on significant challenges in the teaching and improve student performance. Some EFL teachers, however, may still not engage in their professional development for a number of reasons, such as a lack of time, energy, a reluctance to develop professionally, or even a lack of awareness on how and where to begin. Consequently, the implications of how technology is used in EFL teacher professional development activities become quite significant.

The lack of theoretical basis in educational technology research has frequently been a point of problems. Mishra and Koehler (Koehler & Mishra, 2006) developed a theory called Technological Pedagogical Content Knowledge (TPACK) to explore how teachers may integrate technology into teaching. It explains how teachers teach subject matter content in specific contexts employing specific instructional methods and technology. The three areas of core knowledge, technical knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK), are developed as part of TPACK (Aisyah et al., 2021); (Nazari et al., 2019).

Digital Interactive Multimodal Books as Contemporary Learning Media

Digital books are books in digital format that can be accessed via smart cellular phones or computers where students, when reading a text, can also activate other features such as animation and sound effects accompanied by music. This book can also be used as a medium of learning, including learning English, for both adults and children.

Today's electronic books for kids include a variety of multimedia and sensory elements, such as animated images, sound effects, and digital voice narration with text explanations. These are all online books that have been chosen to encourage students to enjoy the process of reading independently in order to enhance their reading habits (Juhriyansyah et al., 2015); (Kucirkova, 2019); (Ezeh, 2020).

By clicking on the arrow that repeats the text, students can use a function key to read or re-listen to the topic being discussed. Sound and animations in digital books can be turned on and off independently. Through highlighting the written material, the children concentrate on the relationship between text, vocal reading, and understanding the content.

The concept of digital books was introduced by Kress in 2001 with the term

multimodality, namely various sources used in communication and useful in learning. Digital interactive multimodal books are books that integrate spoken or written words and other modes, such as visual/image, movement, sound/audio (oral & music), and videos, poetry, websites, so that they are more meaningful. This book can also be used as a contemporary communication tool. The benefits of books with multimodal concepts for students are natural, authentic according to experience, active collaboration/interaction, constructive or something new, and meaningful, so that learning becomes more meaningful.

There are 3 things that should be considered when creating an interactive digital multimodal book: ideational, interpersonal, and textual meanings. Ideational/experiential meaning (field) means considering the process, engagement with the reader; and paying attention to the stages (content), Interpersonal meaning is considering the relationship between the writer and reader, then textual meaning is considering the choice of words, the way the content is organized and how the message is conveyed (Mills, 2011); (Mashfufah et al., 2019).

Children are very interested and enthusiastic when they learn via the Internet, in this case interactive digital books contain a variety of interesting materials, because apart from text, they can independently operate other features, such as sound effects, animations, and even music that are intertwined with the text being read (Djonov et al., 2021). Here, the role of the teacher or parent is to help them learn through the digital book, especially if they have difficulty operating a feature.

Digital Interactive multimodal books as contemporary learning media are electronic presentations of learning books with specific topics and activities that are useful for language learning such as improving linguistic skills, involving students' social interactions, and increasing student motivation (Hwang et al., 2015). This book has also been recognized as a constructivist learning strategy that can be useful in supporting project-based, technology-integrated, and student-centered learning experiences (Barrett, 2006), (Liyana & Kurniawan, 2019); (Bakó, 2016).

For students in this age category of children, it is better if the communication and information technology used is able to support learning, in this case English learning activities through interactive digital books. It is also hoped that later this digital book can be used by teachers or parents in helping to teach English to students/children, and be able to encourage exploration of unknown topics, motivate reading, and develop appropriate learning for Alpha generation children.

CONCLUSIONS
This conceptual based research concluded that:
1. Currently there is lack of studies on the use of digital books for young learners in Indonesian settings. Yet, they contribute to contemporary English learning media in kindergarten and primary school to reinforce digital literacy.
2. The usefulness of a digital book for learning purposes is determined by several factors, including curriculum development appropriateness, students' prior understanding of technology, and the involvement of adults as mediators in a learning experience.
3. The numerous media integrated in the digital interactive multimodal book can activate all five senses while reading it, making learning more meaningful and it encouraged teachers or parents to be able to teach or assist children more effectively according to the development of the Alpha generation.

Recommendation

In regard to TPD, TPACK, and the needs of enhancing children as digital natives, it is wise for teachers to develop the English teaching media into digital interactive multimodal books. Therefore, it can motivate hesitant readers, reinforce learning for children with special educational needs, and reach parents with poor literacy as well as little print books but have smartphones or tablets.

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