

Parents' Perception of the Use of Digital Book Reading App in Improving English Skills for Early Childhood

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Abstract. Literature studies have shown benefits of using technology and multimedia to improve children's engagement and interest in learning. However, the use of technology for children is still receiving mixed views from parents. Digital books are an alternative innovation that can be used by parents to improve their children's English skills in a fun way. Incorporated features in digital books such as voiceover, interactivity, and background music can help children improve their vocabulary and comprehension. Digital books are also believed to be able to facilitate children's needs for access to a variety of books that can be read anywhere and anytime. This study focuses on parents' perception regarding the use of digital book reading applications in improving children's English skills. This study used a descriptive qualitative method with five parents of children aged 4 - 8 years old who have used a digital book reading application named Vocacio for 14 days. The data in this study is obtained by doing an in-depth interview with the parents. The result of the study shows that parents have mixed perceptions regarding the use of digital book reading applications in improving children's reading interest, reading comprehension, reading fluency, and English vocabulary.

Keywords: perception, digital book, English, early childhood

1 Introduction

Early language development is critical. Good language abilities may help children communicate. According to Faqihatuddiniyah and Rasyid [1], good English language skills play a role in children's future by establishing abilities related to building cooperation in the global world through education, utilization of science and technology, trade, and other activities. In relation to English language competencies, Indonesia is ranked #74 out of 100 countries and is included in countries with low English language skills based on the EF EPI [2]. Yamin [3] and Putri & Rasmita [4] stated that one way to improve English skills in children is through reading English books, including digital books. Reading can be a starting point for children to know and develop their English skills.

Children nowadays connect with digital media early on, including digital books. Digital books are a kind of digital media that may organize and arrange information for readers according to Prasetya, Wahyu, and Syaad [5]. Now, storybooks are also published in a digital form. According to Paciga [6], storybooks in English include interactive media that have the

potential to provide meaning, so as to improve literacy skills and English language skills. Yuan [7] also reveals that reading digital English storybooks can increase children’s sensitivity to the sound of the letters being read, knowledge of letters, and understanding of stories. Bates et al. [8] provides recommendations related to the features that should exist in digital books, including narration, hotspot, audio, and visuals.

Children's digital books are becoming a multidisciplinary and methodological subject. The sharing of digital books with young children is different. For example, parents engage in more discussion on digital books than traditional ones, in which both parents and children can be more focused on the story elements [9]. Parental participation in their children's reading activity will have a beneficial influence [10]. Therefore, this study involved parents engaging in the reading activity as parents are the first, primary and natural educators [11]. After the reading activity, parents are required to share their perceptions contributing to providing feedback on the use of digital books for children.

Vocacio Reading App

Various digital book reading applications have been widely developed to facilitate access to reading, one of which is Vocacio. Vocacio is a reading application for early childhood from Indonesia. It provides English digital books in various difficulty levels accompanied by interactive features that can be accessed through smartphones and tablets. The aforementioned features are listed in Table 1.

Table 1. Features of Vocacio

Features available in Vocacio	Features that are not yet available in Vocacio
<ul style="list-style-type: none"> • Independent reading and turning pages • Voice narration • Narration replays • Highlights on text when it's read • Available for iPad • Available for Android • Interactive animations related to the story • Background music related to the story • Links to other supporting applications 	<ul style="list-style-type: none"> • Autoplay feature for narration voice and pages • Recording and sharing recording results • Assessment • Availability of other languages • Pronunciation feature • Available for Kindle • Glossary for difficult words

Vocacio has three main features: library, multimedia, and diary. The library feature contains access to hundreds of storybooks from famous series. Multimedia feature consists of walking text, voice-overs, and voice recognition. The diary feature enables children to draw, type, or record their voice after reading. Furthermore, Vocacio has other features, i.e. independent reading and turning, highlights on text when it’s read, interactive animations related to the story, and background music related to the story. Vocacio is also connected with a learning management system called "ICANDO School".

2 Research Methods

This study aims to explore the parent's perception of using the English Reading app called Vocacio to improve children's literacy and English language skill. Therefore, the researcher investigated this study through a qualitative inquiry, which according to Merriam [12] enabled the researcher to capture the participants' understanding of particular experiences, their perspectives about some issues, and what factors might influence their opinions. Marshall & Rossman [13] as well as Gilham [14] explained that the qualitative approach also provides the design that allows the researcher to describe the importance of context, settings, participants' frames of reference, and the perspective of those involved. The participants were selected through purposive sampling. Cresswell [15] explains that in purposive sampling, the researcher

intentionally selects the particular participants to discover, understand, and gain insights into the specific phenomenon. The criteria for the research participants were: (1) parents of children aged 4-8 years old; (2) Agreed to follow the instruction of study for approximately two weeks; (3) Can operate a mobile phone.

Based on the criteria above, four parents and five children were selected to participate in this study. The researcher asked the parents to give their children one book a day for two weeks through Vocacio App. Participants' children read the books by following the difficulty level, ranging from level 1 to level 3.

During the research process, the researcher considered ethical aspects of the study by seeking consent and explaining the investigation process to the participants. We also used a pseudonym to address the name of the parents and children in this study. The detailed backgrounds of the participants are elaborated in the table below.

Table 2. Participants of the Study

Participant's code	Education	Gender	Their Children
P1	Diploma degree	Female	Rara, girl, 8 years old
P2	Bachelor degree	Female	Eri, girl, 7 years old
P3	Bachelor degree	Female	Lisa, girl, 8 years old Kayla, girl 8 years old
P4	Diploma degree	Female	Avi, boy, 7 years old

The semi-structured interviews were used to investigate this study. According to Merriam [16], semi-structured interviews enabled the researcher to capture qualitative experiences, opinions, information, and perceptions of participants.

After collecting the data through a semi-structured interview, the researcher started preparing and organizing the data for analysis. Firstly, the researcher organized all the data from the interviews' transcripts and the notes taken during the conversations. Cresswell [15] described transcription as converting audio recording or field notes into written data. The researcher then translated the data from Bahasa into English.

According to Temple & Young [17], taking translator roles offer researchers opportunities to give close attention to cross-cultural meanings and interpretations. The next step is analyzing the data. The data are analyzed using a thematic analysis, which according to Braun & Clarke [18] as well as King [19] allows a flexible approach that can be modified according to the study's needs and provides a comprehensive yet complex account of the data. The thematic analysis allowed the researcher to investigate the different perspectives of participants, highlight the similarities and differences, generate the participants' insights, and help the researcher create a clear and organized final report.

3 Result and Discussion

The study discovered the following key findings after analyzing the data collected based on four topics.

Reading Interest

Reading interest can be demonstrated by how engaged a child is during reading activities. According to Moody et al. [20], reading engagement can be defined as children's ability to sustain attention over time when reading a storybook. Children's engagement in reading can be seen from three behavioral dimensions, namely persistence in completing and maintaining

participation during reading, enthusiasm and excitement, and compliance with requests and directions.

We found that the research participants seem to be aware that their children showed interest and engagement in reading storybooks using the digital books reading app. P2 said:

“She’s very happy with it... because it’s new to her, she becomes very interested in it. If I tell her that there’s a new story on Vocacio, she will immediately read it on her own.” This finding is in line with the study conducted by Richter and Courage [21], which found that children were more attentive and more engaged when reading digital books compared to printed books. In their study, Moody et al. [20] also found that children who read digital storybooks showed higher levels of persistence during the reading task, which may increase children's exposure to reading experiences and lead to better literacy skills.

Another interesting finding in regard to the relationship between prior experience in using digital book reading apps and children’s reading engagement. One of the research participants said:

“She’s the one who reminds me. Especially during the first weeks where it’s brand new to her, she becomes very passionate. When she has finished reading one, she’ll continue to read other stories on her own. She can read several stories in one day.”

Reich et al. [22] discovered that children who had little experience in using gadgets (i.e., smartphone or tablet) tend to be more focused on the storybook when it is presented on a digital platform. This finding suggests a potential benefit of novelty in instilling reading interest in children using digital books reading apps.

Vocacio has several features such as page zooming, narrated text, background music, sound effect, and voice recognition. Research participants found that most of these features positively affected their children’ interest in reading after using the aforementioned app. Regarding this matter, P2 shared her view.

“There are (improvements). She’s more interested because the stories are more immersive.”

According to Zhou and Yadav [23], interactive features provided in digital books may support children’s autonomy in reading. These features allow children to explore stories through touching and receiving feedback after their actions. Richter and Courage [21] also states that digital storybooks can also support struggling readers through interactive support, which offers opportunities for an individualized reading practice.

On the other hand, the voice recognition feature provides a less pleasant experience for children when they read using Vocacio. P3 shared in her own words:

“They’re happy, indeed. During the day, they are happy because they are reading for pleasure. But at night, I told them to use voice recognition. So they feel like they’re being forced to learn to read. In addition, if they made a mistake, they have to repeat it thrice. It’s different when they read for pleasure and when they read books for studying.”

We infer that the negative feedback children get when using the voice recognition feature might decrease the enjoyable experience when reading. This might hinder children’s motivation and interest in reading using Vocacio. Thus, this feature needs to be reviewed for better experience for children.

Reading Fluency

According to K. Goodman [24], reading fluency is a crucial aspect of one’s reading skills and the manifestation of reading skills. Meyer and Felton [25] said that a person is deemed to be fluent in reading when they are able to read fluently, automatically, and almost effortlessly. Thormer & Williams [26] mentioned three key elements in reading fluency assessment, namely accuracy, automaticity, and prosody. Accuracy refers to someone’s decode precision when relating the visual of a written word to the phonological awareness or a sound that represents

said words. Automaticity occurs when someone is able to decode without any additional help, thus making it frequently related to reading rate. Reading accuracy and rate is not always proportional to understanding. Therefore, the element of prosody is needed. According to Couper-Kuhlen [27] and Kuhn et al. [28], prosody refers to the ability to read with correct expression, intonation, and pausing. Once someone is able to read with the correct prosody, they are deemed to have excellent fluency and comprehension as prosody is impossible to do without comprehension.

The interview with the participants has shown that their perception regarding improvement in reading fluency from 2 weeks of reading digital story books through Vocacio is positive. Interestingly, the improvement also has affected children's fluency in speaking which can be seen from children's narration of the previously read stories.

"Because it's in English, the advantages are that children can listen to the pronunciation and the correct intonation. Printed books can't give such advantages. Before knowing VOCACIO, it was still difficult for her to read English books."

Vocacio provides a narration feature that provides a native English pronunciation model complete with text pointers. According to Morris in Zipke [29], the text pointing feature makes recognizing words in isolation easier. A native-like natural narration also provides a model when children listen so they can imitate the pronunciation when they need to express it. Moreover, the voice recognition provided in VOCACIO enabled children to imitate what they have heard. Both experiences support word recognition and sight vocabulary which is related to automaticity improvement as stated in Baker and Bradley [30].

Vocabulary

According to Ouellette [31], there has been increased awareness of the positive correlation between vocabulary knowledge and reading comprehension for the past few years. Masrai [32] stated that vocabulary knowledge also became a reliable indicator of children's reading skills. Book reading activities can play a significant role in helping children develop and improve children's vocabulary. The responses of the research participants showed that children benefited from the use of Vocacio in terms of developing children's vocabulary, as P2 stated:

"The purpose of trying a digital reading application like Vocacio is to make children love reading because there are plenty of interesting storybooks. In addition, when they read, their vocabulary will definitely improve."

The participants' views are in accordance with the studies that showed reading a storybook could enrich children's vocabulary, as it provides them with opportunities to hear new words as mentioned by Senéchal & LeFevre [33], builds print knowledge as stated by Baker [34], enhances their phonological awareness by exposing them to rhyme stories as revealed by Hayes [35], and develops the comprehension skill as stated in a study conducted by Lehr [36]. Vocacio enables children to access hundreds of books. As they read the books, they get exposed to words, consequently fostering children's vocabulary development. Other parents stated that there is an improvement in children's English skills after using Vocacio. She said that Lisa could use the vocabulary in writing text as a reflection of the story.

"There's definitely a change. They're already at the stage where they can write and recount things in English. Although their speaking abilities aren't too fluent, they're already using some English words to retell in written form."

Additionally, P3 argued that even though Lisa and Kayla have not been able to write using correct grammar yet, they could write some words from the story and draw pictures of it. Along the same line, P4 asserted that Avi often used the word in the book while playing pretend. The statement from the research participants showed that the children were not only exposed to vocabulary from books, but they could also use it in written text and conversation. We also

found another interesting statement concerning the benefits of the digital reading app on vocabulary development, as P2 stated:

“Her vocabulary improved. That’s the advantage of digital books when compared to printed books. Printed books don’t have examples of how a word should be pronounced.”

This finding supported the investigation conducted by López-Escribano et al. [37], which emphasized that multimedia features such as narration provide scaffolding for children’s literacy experiences. Digital books with audio narration could enhance children’s vocabulary and raise their phonological awareness, indicating that using digital books independently may be a valuable practice for promoting children’s emergent literacy skills.

Reading Comprehension

According to Daro’aeni et al. [38], reading comprehension is the capacity to comprehend written material. Text comprehension is crucial to learning materials mastery. Developing comprehension skills is also important to prevent distortion and misunderstanding of the content. Thus, reading comprehension is important in school and in life. Vocacio as a reading application has the opportunity to improve children’s reading comprehension skills through appropriate multimedia features and complementing the reading context. Vocacio as a reading app is also equipped with animation and pictures that increase understanding of the storyline as proven in several studies as mentioned by Verhallen, Bus, & de Jong [39].

According to Verhallen, Bus, & de Jong [39], animation and narration features in digital books will help children with poor comprehension skills to understand words and stories faster. Participants in this research also revealed that Vocacio is able to improve reading comprehension in early childhood. The pictures displayed in the books match the stories (telling the plot of the pictures), so children can understand the content of the story and recount the story that has been read. P-1 revealed:

“Indeed, she likes it. Moreover, when she learns from the digital book (Vocacio), she’s able to understand better. Perhaps it’s because of the pictures in the digital books which tell the plot of the pictures that she can understand reading through pictures.”

A meta-analysis study conducted by Takacz et al. [40] reveals that multimedia features such as voice narration, music, and animation have positive effects on children’s reading ability. P-3 explained in her own words:

“Oh, it depends on the story. There are stories they find amusing, such as Minnirella, when Mickey gave Minnie a surprise. There are also words that they find funny or stories that make them happy because the music is good. Since they’re twins, most of their expressions are identical.”

Vocacio also has the ‘*My Diary*’ feature as an in-app platform for children to recount the story in the form of pictures or voice recording. Repetition in reading digital books on Vocacio can be maximized using the ‘*My Favorite Book*’ feature as a shortcut for children to read their favorite books repeatedly. Research participant P-3 revealed that not only her children could retell the story in their mother language, but they also tried to use English, so she felt like their English skills developed really well.

Drawing on the aforementioned opinion, parental assistance is also one of the factors that determine children’s success in understanding stories. Parental assistance is also proven to be able to increase reading comprehension. Various studies show that children have a better understanding of stories when they read with parental assistance compared to using digital books with read-to-me mode independently as stated in Richter & Courage [21] and Takacz et al. [41]. In addition to developing children’s love for books from a young age, parents also become facilitators in clarifying features or stories that children do not understand. This is reflected in P-3’s explanation in the interview:

“There are (improvements). They’re more interested because the stories are more immersive. However, since the person reading the voice-overs appears to be a native speaker, sometimes children were not able to understand it. Therefore, they still need to be accompanied or listen to my explanation first to understand. They already love to read in the first place, both digital books or printed books.”

Based on the result of the study, it can be concluded that Vocacio is an application that can improve children’s reading comprehension. “My Diary” feature as well as various multimedia features such as music, narration, and voice recognition developed children’s interest in reading and unintentionally improved children’s ability to comprehend stories.

The improvement in children’s ability to comprehend stories after using Vocacio can also be seen from children’s ability to retell stories in English.

4 Conclusion

Parents have a positive perception towards Vocacio digital reading apps. They believe that using digital books during reading has improved their children's reading engagement, vocabulary, fluency, and comprehension. Embedded features provided on the reading app enable children to exercise their English skills, both verbally and in writing.

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