A PHENOMENOLOGICAL INVESTIGATION OF PRESCHOOLERS' EXPERIENCES IN READING AN E-BOOK

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Abstract

The diffusion of technology in our daily lives has changed our ways of communication, socialization, play, etc. as well as the way we learn. The reflections of this transformation can also be seen in both formal and informal educational settings. A brief review of the literature reveals both successful implementations and potential problems with technology use in education. However, there is still lack of research studies regarding the use of technology in early childhood education. The literature provides two sides of a current debate on technology use. There is a multitude of researchers who strongly oppose even the idea of technology use in early childhood. They state how technology is speeding up things that a child should experience himself or herself in due time. On the other hand, the advocates argue back that not only adults or pupils but preschoolers should also benefit from the advantages that new technologies have to offer. The current study aims to explore the effects of technology on the reading experiences of preschoolers. It is designed as a qualitative study to further explicate both the advantages and disadvantages of technology utilization. For this purpose, 17 five-year old preschoolers were observed during their reading sessions followed by short interviews. For their reading sessions, they were provided with multi-touch tablets and were observed while reading a digital storybook by using it. The results of the study will shed light on the effects of technology on children's reading experience and will provide new insight into the debate of technology use in early childhood education.

Keywords: Computer games, preservice ICT teachers' perception, educational use of computer games.

1   INTRODUCTION

The diffusion of technology in our daily lives has changed our ways of communication, socialization, play, etc. as well as the way we learn. The reflections of this transformation can also be seen in both formal and informal educational settings. A brief review of the literature reveals both successful implementations and potential problems with technology use in education. However, there is still lack of research studies regarding the use of technology in early childhood education. The literature provides two sides of a current debate on technology use. There is a multitude of researchers who strongly oppose even the idea of technology use in early childhood. Yelland (2005) summarizes the ideas of opponents in his article, where he looks back a decade of studies conducted from 1994 to 2004. He stated that for the opponents computers were too abstract and that students experienced the ideas/concepts only in two dimensions in computers when compared to three-dimensional real world that we live in. It minimizes the teachers' role and does not assist children in working collaboratively. The programs used in computers were considered to be developmentally inappropriate for the kids in their early childhood. In addition, it was claimed that once the children start to use computers, they will only want to play computer games and would rather play computer games than playing with the traditional play materials (Yelland, 2005). Lastly, echoing Yelland (2005) on the inappropriateness of computers for the young children's developmental stage, Vernadakis, Avgerinos, Tsitskari, and Zachopoulou (2005) stated that they are too symbolic for the young children.

In spite of these beliefs, there are still a huge number of researchers who argue back that not only adults or pupils but preschoolers should also benefit from the advantages that new technologies have to offer. Despite the idea that computers are not appropriate for the young children, such researchers indicate that when used appropriately, young children can also benefit from the computers. For instance, Escobedo (1992) found that computer provides an environment that leads meaningful or symbolic play. In line with this finding, 3-4 years old children who used computers with supporting

activities that reinforce the major objectives of the designated programs are found to significantly develop their intelligence; problem solving, conceptual and nonverbal skills; manual dexterity; structural knowledge; abstraction; verbal skills and long-term memory compared to the ones who do not have any computer use experiences (Haugland, 1992 cited in Haugland, 2000). In another study conducted by Haugland (2000), he added that computers develop children's motor skills, improve mathematical thinking, and develop critical thinking and problem solving skills. He further stated that these advantages that the computers offer to kindergarten and primary school children depend on the computer use experiences of these children as well as on the frequency of their access to the computers. As a result of the cumulative evidence on the advantages of computer and technology use, researchers started to focus on "how technology should be used" in early childhood education rather than debating its appropriateness for children.

As stated by Miller (2005), the focus should not be on the tools. Instead, it should be on the activities that foster the development of children to their full capacities. The technology that is used by the 3-7 year-old children should encourage collaborative play, creation, conversation, problem solving, and mastery learning (Walton-Hadlock, 2008).

Isbell, Sobol, Lindauer and Lowrance (2004) state that kindergartens play an important role in the development of young children's language development as well as in providing enrichment for their language learning. In addition, it has been found that vocabulary knowledge gathered in preschool and kindergarten affects children's reading ability (Scanlon & Velutino, 1996). Children with poor vocabulary skills are susceptible to experiencing difficulties in reading achievement in the elementary level (National Reading Panel, 2000).

Storybook is one way to help young children enhance their language learning as well as increase their vocabulary knowledge. As stated by Laura and Jutice (2002), shared storybook reading interactions provide situations in which children meet novel words in highly contextualized format. Kaderavek and Justice (2002) found that storybook reading fosters the linguistic growth of young children. According to them, with the help of shared storybook experiences, children significantly develop themselves in various areas such as vocabulary skills, conversational participation, emergent literacy knowledge, etc. It accelerates linguistics development of young children. Sénéchal and LeFevre (2002) argued that storybooks help children to develop their vocabulary and listening comprehension skills which affect their reading in the third grade. According to Wells (1986), reading achievement in later ages can be predicted by hours that children spent on reading. As stated by Isbell, Sobol, Lindauer and Lowrance (2004), reading the books aloud helps children develop their listening and speaking abilities as well as increase their reading achievement scores. It helps children to learn a substantial number of words (Roberts, 2008). Children that experience storybook reading activities are more likely to form and use complex sentences, to be better at letter and symbol recognition as well as development of literal, inferential and comprehension skills (Silvern, 1985). Furthermore, Silvern (1985) claims that children with such storybook reading experience also gain positive perception about reading. Lastly, Kaderavek and Justice (2002) argued that if children discuss the text and the illustrations of the books, story reading can increase the communication between young children.

Digital storytelling is an option that may help the children to have reading books aloud experience. There are many definitions of digital storytelling in the literature. For Ohler (2008), digital storytelling is a creative process in which traditional stories are enriched with digital technologies such as computer, sounds etc. The Digital Storytelling Association (2002) defines it as modern expression of storytelling. According to them, these digital stories are media-rich stories in which digital media are used to enhance the story. Thus, in its very simple definition, digital storytelling can be described as the modernized version of traditional storytelling enriched with multimedia.

As Robin (2008) proposes, the use of digital storytelling in the classroom environment encompasses creating and sharing media-rich stories for the purpose of facilitating the presentation of the content and its encoding by students. Digital storytelling can help teachers to get students engaged in the learning process and encourage them to become more active and self-autonomous learners who can both encode available materials and produce their own materials. In addition, digital storytelling can assist teachers in clarifying abstract concepts (Robin, 2009, p. 222). It provides students with the opportunity to build their own knowledge and understanding of the content and promotes collaboration among students (Yuksel, Robin & McNeil, 2011). Finally, Robin (2006) states that when students design, create and present their stories, they develop a full repertoire of literacy skills including research, writing, organization, technology, presentation, interview, interpersonal, problem-solving and assessment skills. Davies (2007) states that storytelling can help children to develop their listening and speaking skills and improve their language and imagination.

Even though digital storytelling has above-stated numerous benefits, there is limited research related with how they can be used in early childhood education. The current study aims to demonstrate how it can be used in these settings. It tries to illustrate preschoolers' experiences, when they read a digital story from tablet PCs. Moreover, it aims to shed light to the paths that researchers and teachers might follow when they decide to implement such technology use in early childhood education. To be more specific, the main research question and the following sub-questions are as follows:

1. What is the essence of preschoolers' experience of reading a digital story from a tablet PC?
    a. How do preschoolers describe their experiences about reading a digital story?
    b. What kind of reactions, feelings do they demonstrate during this experience?
    c. What kind of problems they encountered with during this experience?
    d. What did they like/dislike?

2   METHOD

2.1   Overall Design of the Study

The current study is designed as phenomenological research. Phenomenological research is a qualitative research technique that tries to "make explicit the implicit structure and the meaning of human experience" (Sanders, 1982). It tries to identify the totality of lived experiences of a single person (Giorgi, 1997) and the "essence" of the lived experience, which is universal and can be described through a study of the structure that governs the instances ... of the essence of that phenomenon" (Van Manen, 1990).

2.2   Participants

Convenience sampling technique was used in this study. This study was conducted in one of the kindergarten classes of a preschool in Ankara, Turkey. In this study, there were 17 preschoolers who were 5 years old. Out of 17 children, four of the students already have such tablet PCs already in use at their homes. In other words, four children already had tablet PC experience prior to this study. However, they used these tablet PCs for playing games. None of the children in this study had an experience with digital books. They did not see or read a digital book beforehand.

2.3   Instruments

For this study, a digital book was created by the authors. The story was about the jobs and the storyline was revolved around two kids discovering a trunk full of various hats that different professionals wear during their work or clothing items and tools that are identified with certain professions, such as photography, firefighting, dancing, etc. The story of the digital book is examined by an expert in order to assess whether the story and its language is appropriate for five year-old children. In addition, the same expert also reviewed the final version of the digital book as a whole with the illustrations.

The storybook contained three main elements i.e.: animations, audio and text. Animations were designed by the researchers of this study to gain children's attention during the reading session. Taking photos, extinguishing the fire can be given as an example for the animations. Touching the related items on the scene activated these animations. The story was told by using both audio and written text. Since the preschoolers did not yet know how to read, the audio helped them to understand what was written on the page.

In this phenomenological research, the data were collected by qualitative data collection methods. As stated by Bogdan and Biklen (2007), there are two main qualitative data collection techniques, observations and interview. The data in this study was collected by observation and semi structured interviews. However, since the participants of this study were too young to express themselves in detail, the data were mainly collected through the observation. Two of the authors and two recruited researchers conducted the observations and interviews in this study.

2.4   Procedure

The procedure of this study was divided into two main phases. The first phase was creating the digital book that would be used in this study. The second phase was the main phase in which the data were

collected. This phase could also be divided into three steps as preparation to reading session, reading session and evaluation of reading session. In the first and the second steps, the researchers did not intervene unless the children needed or asked for help.

In preparation to reading session, the classroom teachers introduced the researchers to the children and explained what they would do in the lesson. Then, the children were divided into four groups. There were four children in each group, except for one, in which there were five children. After forming the groups, the researchers gave one tablet PC to each group. At the beginning of the study, the children were allowed to discover the use of the tablet PCs in order to decrease the novelty effect that may be exerted by this new technology.

In second step of the second phase, the researchers opened the digital book and asked preschoolers to discover the book. The researchers observed the children during the reading session and intervened when the children encountered problems such as using the tablet PCs etc.

In the last stage, the researchers conducted semi-structured interviews with the members of each group to reveal their experience in reading a digital storybook via tablet PCs.

3 FINDINGS

The findings of this study are given under three headings, preparation to reading session, reading session and evaluation of reading session

3.1 Preparation to Reading Session

When the children heard that they were going to use tablet PCs, they became very excited. As soon as they were given a tablet PC, they immediately turned them on and tried to discover their use. As mentioned under the participants heading, some children were tablet PC users. Therefore, it was observed that these children tried to help the others about how to turn on/off and interact with the PCs by providing guidance or telling what to do via imperatives or demonstrating the steps.

3.2 During Reading Session

During the interaction with the digital story, two main issues emerged regarding the essence of this experience: interaction and collaboration. Since the digital book was different than the traditional books, discovering the interactive objects and animations in the digital book and interacting with the animations become more distinct than the reading part. Students focused on the animations and tried to discover the animated items rather than listening the story in every page of the storybook.

Nevertheless, collaboration became an important contributor to their enjoyment of the experience. It resulted in taking turns, self-organization and management among the children. Children decided the turns at the beginning of reading sessions. However, it was seen that since this was a new experience for them, sometimes they could not wait for their turns while reading or wanted to use the tablet PCs alone. In those situations, the researchers informed the students about the turns and wanted them to respect the rights of their friends to use the tablet PCs. Another important finding regarding the collaboration was that, children tried to motivate their friends who got bored by asking them to click on the animated items in the storybook. By this, they tried to keep their friends attention on reading and motivate them to continue experiencing the digital story.

3.3 After Reading Session

The researchers conducted semi-structured interviews with the members of each group. In the interviews, the children stated that they liked the digital storybook very much. For them, it was fun to read a digital book and use tablet PCs. Moreover, they stated that they liked the animations a lot.

Since most of the children had not use the tablet PCs before, 10 children stated that it was difficult to use tablet PCs. They said that they did not understand how they could turn the page or how they could use tablet PCs. Three children stated that the screen should be small. For them, big screens were difficult to use. One child stated that since their fingers were shorter and smaller than adults, they could use small screens more easily.

4   DISCUSSION AND CONCLUSION

After the findings of the study are examined closely, it can be concluded that the main element, which constitutes the essence of children's digital storybook reading experience, is the enjoyment of the self and fun. However, it was also observed that children were more focused on animations rather than story itself. When they realized that some animations are triggered when they touched certain relevant items, they touched every item located in the scene with an expectancy. They focused more on how the items were animated rather than the story line itself from time to time.

In order to benefit from digital book, some suggestions from this study are listed below for the researchers and teachers who want to adopt digital storybook use in their classrooms.

First of all, there should be guided interaction, since the children might be more focused on animations rather than story. For this reason, the animations and the story should not be given at the same time. The children should be encouraged to listen the story. Then, the animations should be given.

Secondly, if the students work in groups, children should take turns to use the digital story and there should be facilitator in the groups. In this study it was observed that children show respect to taking turns and warn one another to follow their turns. But sometimes due to their excitement to use the tablet PCs, they do not want to wait for their turns and want to use the tablet PCs immediately. In those situations, the facilitator should intervene and remind children that they are taking turns.

Finally, in this study it is observed that there should be three children in each group. When the number of the children in groups exceeds three, they got bored. Thus, it is advised to both the teachers and the researchers to form groups of three children when they use digital storybook in the early childhood education.

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