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Abstract: The aim of this study was to develop an interactive learning tool using computer with a view to enhance preschoolers' reading ability in English class. This study adopted an action research methodology addressing the call for more authentic materials for preschoolers to sensitise their curiosity by using authentic objects. This study consisted of two phases; in phase 1, a teacher taught preschoolers basic reading skill by introducing letters and words via printed worksheets while in phase 2, the preschoolers learned the same content via computer. Twelve preschoolers (7 girls and 5 boys) and two teaching staff from Smart Reader Kids participated in this study. The results showed that computer-based learning activities created multi-trial opportunities without any negative interference to the preschoolers. This experiential learning that involved trial and error approach enabled preschoolers to learn independently and at the same time engage in fun-filled activities to self-regulate their learning. Classroom observation further indicated that the preschoolers enjoyed participating in the reading activities designed for them. The use of authentic photographs and visuals in the exercises were appealing and encouraged them to engage in meaningful communication with their peers. In addition, preschoolers displayed a high level of confidence during the lesson as the environment was encouraging without much intervention from the class teacher. This ultimately persuaded the preschoolers to give their own responses while creating opportunity for themselves to explore their own learning.

Keywords: interactive, multi-trial, authentic pictures, self-assess, self-regulate

1. Introduction

Being able to read is the foundation of a child's literacy. It is crucial that reading skill is developed at the preschool level as mastery of this skill paves the young children's way into the world of literacy. Preschool children who do not master the necessary literacy skills in reading may struggle to achieve academically in elementary grades (Bailet, Repper, Piasta, & Murphy, 2009). For learning to be effective, it should also be fun and entertaining. One way is to incorporate games into learning, including reading skill. Games play an important part of learning for young children (Nacher, Garcia-Sanjuan and Jaen, 2016). This should especially be taken into account when teaching reading to young learners. The benefits of incorporating games in learning to read are many, some of which are improving cognitive, physical and emotional growth of young learners, thus motivating the learners to learn. Games can be introduced in learning via the use of technologies such as computers. Computer-assisted learning has its foundation from computer games.

While computer games' main purpose is to entertain the players, computer-assisted learning combines entertainment with the learning content, and is therefore entertaining and educational. Hence, both computer games and computer-assisted learning have similar features that include "fun, rules, goals, interaction, adaption, outcomes and feedback, win states, conflict/competition/challenge/opposition, problem solving, social interaction, representation and story" (Prensky, 2007). Using computer-assisted learning in teaching reading not only provides interesting activities that captivate the learners' interest but also motivate these young children. Therefore, this study investigates the effectiveness of a computer-assisted product, Fun Learning Series: Letters to Words to acquiring literacy in reading.

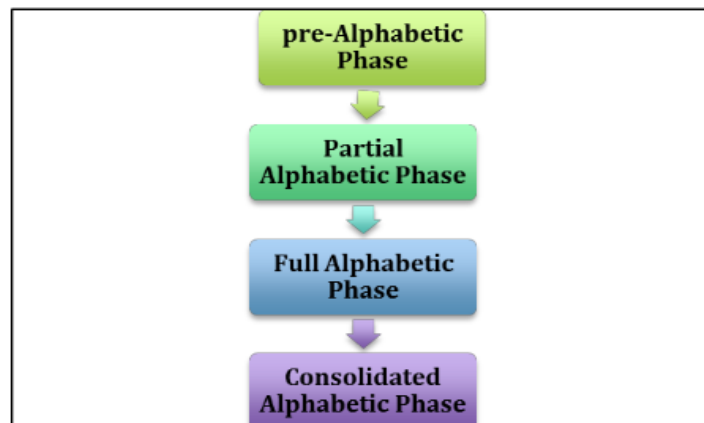
2. Problem Statement

Previous studies have shown the benefits of using computer-assisted games in learning to read. The computer-assisted games include learning activities such as matching pictures with spoken words, indicating which letter sound is heard, and matching written words to pictures. The findings indicated that these activities assisted learners to recognize words and decode. Some studies suggest that pictures are a useful tool to teach vocabulary (Silverman and Hines, 2009; Best, Dockrell and Braisby, 2006). Results from these studies indicated a marked improvement in vocabulary acquisition when pictures are used in computer-assisted games. Furthermore, computer-assisted games also develop learners physically. Study by Strommen et. al. (1996) showed that games that use a mouse for pointing and dragging improve learners' precise pointing interactions. Prensky (2007) pointed out that computer-assisted games enhance learners' learning interest and motivation, therefore developing their self-esteem and their ability to learn independently. However, very little has been done among preschoolers to see the effectiveness of technology based teaching and learning in the classroom. Therefore, this current study is crucial to investigate the impact of a computer-assisted game that is interesting and motivating in learning reading skill.

3. Objectives

The aim of this study was to develop an interactive learning tool using computer with a view to enhancing preschoolers' reading ability in English class. This study adopted an action research methodology addressing the call for more authentic materials for preschoolers to sensitize their curiosity by using authentic objects. This product entitled Fun Learning Series: Letters to Words aims to encourage young learners to recognize letters and attempt reading independently. The activities designed are from easy to more challenging.

This study uses Ehrin's (2015) Sight Word Learning theoretical framework. This framework is based on four stages namely pre-Alphabetic phase, Partial Alphabetic phase, Full Alphabetic phase and Consolidated Alphabetic phase (Figure 1) and provides a framework on how learners learn to read.



This study consists of two phases. In phase 1, preschoolers were introduced to upper and lower cases of letters. The teacher taught letters using pictorial cards and flash cards consisting letters and words. The introduction was accompanied by the teacher's voice, followed by authentic pictures, familiar objects and letters. Next, authentic images were accompanied by the words sliding onto the screen with the teacher saying the words aloud. At this stage, the children were encouraged to repeat the words after the teacher. The audio and visual repetition led to gradual internalization of letters which later boosted students' retaining memory. After teaching, the preschoolers were given guided worksheets to attempt activities; matching words with right pictures, fill in the blanks and write the right word for the given pictures. Some preschoolers managed to complete all assigned tasks correctly while some did not succeed.



In phase 2, the researchers used the same materials but this time the teacher did not conduct the lesson, instead the preschoolers learned the same content via computer. Once the children were introduced to all letters, they gradually progressed to identifying an image and dragged it along to match the images to the right words. If the children successfully matched the right picture to the right word, the word and the image will be paired. Otherwise, the word caption will return to its original box till the child gets it right. The children were encouraged to attempt as many times as possible till they get all correct answers. Once they complete the task, the program congratulates the children. While engaging in this exercise, the child is not only able to identify the letters but also enjoys an opportunity to go one level higher, where the child starts reading the words. This establishes a progressive improvisation of reading skill among these young children.



4. Novelty

To the researchers' knowledge, the authentic images and visuals are the first of its kind, offering preschoolers to learn letters and words in a fun-filled manner. This interactive CD is designed in a simple and colourful mode to capture preschoolers' interest to acquire reading skill in a fun-filled technique. This interactive product is specifically designed as a pedagogical transformation from the conventional method that places much reliance on teachers to teaching of reading skills. This approach allows preschoolers to learn at their own space and progress gradually. In specific, this easy-to-use interactive product will enable preschoolers to use the learned letters and words in their daily interactions which will make preschoolers to be abreast with the global market.

5. Potential Commercialisation

The endless possibilities and potentials offered by this interactive product, Fun Learning Series: Letters to Words make it a worthwhile and practical educational interactive tool to be commercialized, especially among young learners, language practitioners, preschools and parents throughout Malaysia. Apart from that, the Fun Learning Series: Letters to Words can serve as a useful teaching and learning aid, particularly for language teachers to teach basic reading skill. This innovation is expected to have a good commercial value among, teachers and parents.

6. Conclusion

The Fun Learning Series: Letters to Words hands on activity provides great opportunity for young children to explore and become familiar with online interactive learning. Findings of the research shows that the use of interactive activities allows the children's mind grow and gain experiences which cannot be obtained from conventional learning or from teach and talk method. Observation of the classroom activities showed that on the whole the students enjoyed participating in the activities designed for them. The use of authentic photographs and visuals in the exercises are "appealing and can better motivate learners" (Suppiah, Subramaniam & Subrayan, 2011: 170). In addition, interview with the class teacher also indicated a positive sign whereby the teacher felt that the interactive activities helped motivate passive learners to engage in meaningful communication with their peers actively.

As stated by Cooperstein and Kocevar-Weidinger (2004), the Fun Learning Series: Letters to Word module allowed preschoolers to become familiar with the subject they are learning. Significantly, allowed the young learners to make multiple attempts which give confidence to slow learners to keep trying until they get the right answer. In fact interactive learning allows young learners to experiment with trial and error and most importantly it enriches the minds of young children in new and exciting ways. Studies by Cremin, Burnard and Craft (2006) and Wood and Ashfield (2008) provide evidence for increased level of enthusiasm, enjoyment and motivation when students are involved in creative activities. As the students were allowed to participate in small groups, they get the opportunity to collaborate and discuss their choices with their partners. This approach, according to Cohen (1994), is a good strategy to keep the students engaged in their group work.

7. References

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