

INTERACTIVE MULTIMEDIA TECHNOLOGY FOR IMPROVING CHILD'S LANGUAGE LEARNING

¹Nordin Mamat, ¹SitiRahayuIsha, ¹RosmidahAsong, ²Mohd Mahzan Awang, ²Abdul Razaq Ahmad

¹Faculty of Human Development, Universiti Pendidikan Sultan Idris, Malaysia

²Faculty of Education, UniversitiKebangsaan Malaysia

ABSTRACT: *This study aims to identify the use of Interactive Multimedia Technology in Teaching and Learning to enhance understanding English Preschool children's learning in preschool children. This is an experimental study of children in terms of their involvement in the activities of teaching and learning English through two different methods of teaching. A total of 30 preschool children in the National School Sepang divided into Treatment Group (15 persons) and control group (15 people). The results showed the mean post-test scores for the treatment group was higher than the control group. The results showed the mean post-test scores for the treatment group was higher than the control group. Results showed that the use of Interactive Multimedia Technology in Teaching and Learning to enhance understanding of English pre-schoolers. Learning methods using Interactive Multimedia Technology is effective in changing the behaviour of children increase children's interest towards English.*

Keywords: *Interactive Multimedia Technology, understanding, preschool children, teaching and learning.*

INTRODUCTION

In the world of Information and Communication Technology (ICT), most children are exposed to the use of ICT at home, cyber cafes and preschools. Therefore, the teaching of the teacher must be in line with the student's existing level of knowledge. If the teacher does not apply computer-aid in teaching and learning, then the teacher's teaching process will be tedious, unpleasant and boring for the children (Johnston, 2019). A teacher must know how to use the latest technology and to promotes it to optimize teaching and learning processes. This issue included in English class, in current situation the fun of learning English in the preschool classroom was not satisfactory. Several factors have been identified, but the main focus is preschoolers' weaknesses in understanding English subjects due to their own teaching and learning methods. This is because there are still have teachers who use formal teaching methods such as in the mainstream class. The use of teaching materials or tools is less efficient and is not relevant to the subject being taught

PROBLEMS STATEMENTS

Children's competence and understanding of English are often problem for preschool teachers, so teachers need to choose teaching methods that are fun and effective for their students. The use of teaching materials that are less efficient and not relevant to the subject being taught and the large number of children in a classroom also results in less interaction between children and teachers. This causes children to become less active and passive because they do not understand what they are learning.

This study aimed to see how the use of Interactive Multimedia CDs can improve preschoolers' English comprehension and to see how children's behavior changes in terms of their involvement in teaching and learning English subjects in two different ways based on post test results (Nordin, 2019). The effectiveness of the use of Interactive Multimedia CDs in teaching and learning English in preschool is reflected in the scores of pre-test and post-test scores of 30 pre-selected preschool children

OBJECTIVES

There are two objectives in this study, first; identifying an increase in preschoolers' understanding of English subjects through learning activities using the Interactive Multimedia Technology via:

- i) *Myself*
- ii) *Fruits*
- iii) *Animals*
- iv) *Transportation*

Second, to identify changes in children's behavior in terms of their involvement in learning activities using the English Interactive Multimedia Technology compared to conventional methods.

LITERATURE REVIEW

The use of multimedia such as Interactive CDs in early childhood education has many benefits for children and even for teachers to support the teaching process such as using multimedia in explanation of the body more effective in classroom (Bentley, 2018). The findings of a study by Latifah Abdul Majid (2012) conducted at three government and private preschools in Kuala Terengganu district found that children and teachers of preschool reacted positively to the effectiveness of multimedia use in the classroom. There is also a study on interactive multimedia that focuses more on animations in software run by Ronaldi Saleh et al. (2011) at two schools in Rawang with 11 respondents. The findings showed that 100% of the students liked what they saw and showed interest, curiosity and motivation as well as being able to follow the lessons and activities presented using specially designed animation techniques.

This study deals with the use of interactive CD-ROMs to assess student achievement in reading and comprehension using two different methods: multimedia and traditional methods. The study was conducted on 52 students at a government primary school in Brunei Muara. This finding is in line with a study conducted by Auzar (2012) on 86 1st-grade students in primary schools in New Pekan also showed that the use of computers through reading learning software showed significant effectiveness compared to traditional reading learning. The use of software in reading learning has also improved students' reading skills. This proves that the effectiveness of multimedia use is undeniable in its impact on teaching and learning (TL) especially involving children.

Meanwhile, Sawsan et al. (2012) conducted a study on the impact of multimedia use on elementary school children in a primary school in Jordan found that the use of multimedia in teaching had a positive effect on children's focus. The results of the study also show that there is an improvement in children's learning skills as well as motivating them to learn through the graphics and animations as well as educational games in the multimedia software.

According to Nicoletta Di Blas & Bianca Boretti (2009) children love and enjoy learning using interactive materials, they also show changes in their behavior in terms of active

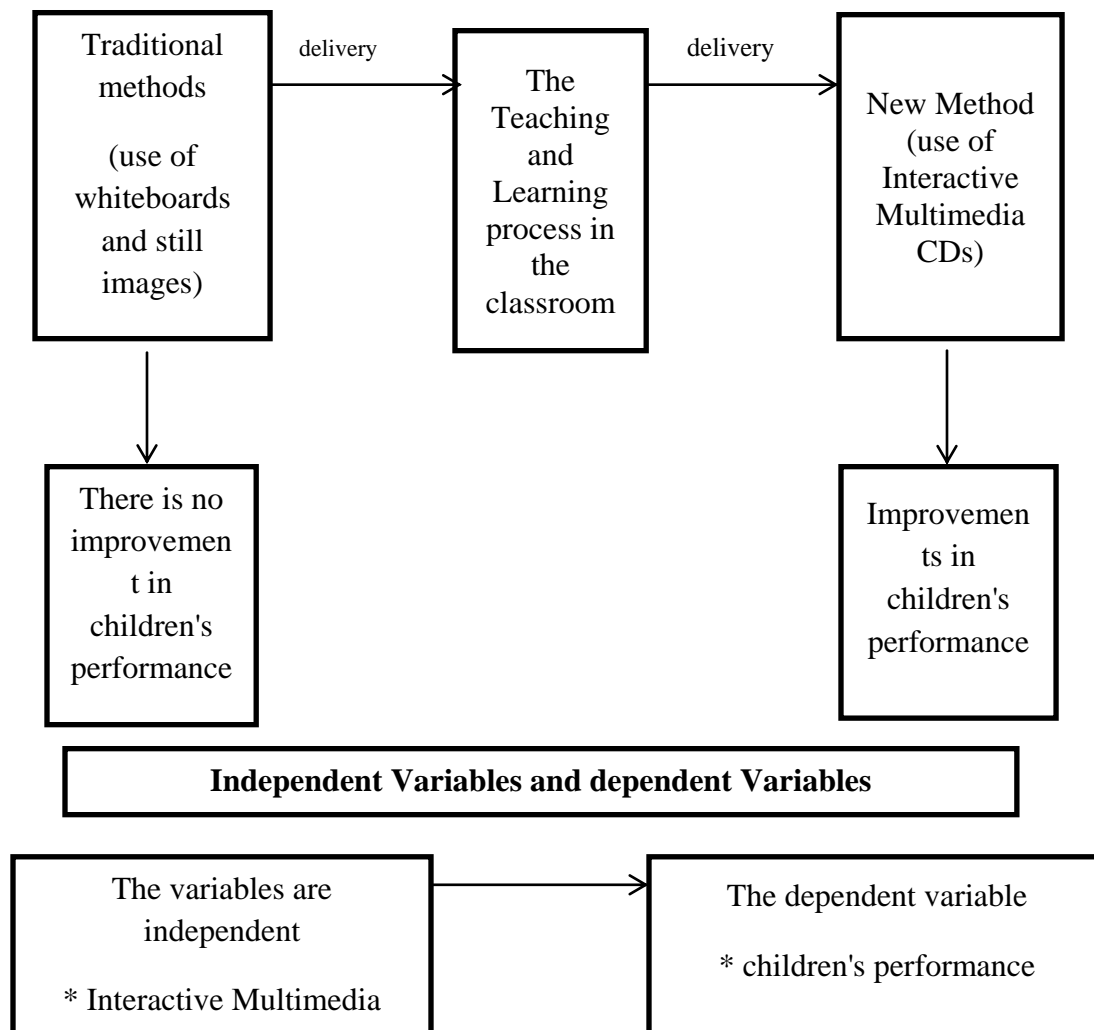
engagement and faster understanding of what they are taught. Inline with Nordin et al (2019) that children always interested to activities that involve information technology. Studies have also been conducted on 27 preschool children in Padua, Italy who find children to enjoy using interactive materials. This finding supported by Suzan & Serife (2010) conducted a study on a group of Turkish primary school children in Norway also found that interactive learning effectiveness helped students to better understand their lessons than ever before. The 17 pupils also said learning using interactive media was more effective and enjoyable, while helping students to overcome their weaknesses in terms of vocabulary and self-esteem.

METHODOLOGY

This study is an experimental study involving two groups of 15 preschool children per group. Both groups will be given a pre-test before the study, while the post-test or post-test will be given at the end of the study. The duration of the study was 3 weeks and the researchers themselves taught the two groups to study the titles 'Myself', 'Animals', 'Fruits' and 'Transportation'. Observations were also carried out and data were collected for analysis using SPSS 22.0.

CONCEPTUAL FRAMEWORK

The relationship between the use of Interactive Multimedia CDs and performance improvements children in the title 'Myself', 'Animals', 'Fruits' dan 'Transportation'



RESULTS

The findings of this study explained based on observations, pre-test and post-test. The material used in this study is the Interactive Multimedia Technology that focuses on the four topics contained in the preschool theme.

Objective of Study 1: identify an increase in preschoolers' understanding of English subjects through learning activities using the Interactive Multimedia Technology by title *Myself, Fruits, Animals dan Transportation*.

Table 1: Percentage Differences in Increased Understanding of Crystal Class and Smart Class

Class	T1	T2	T3	T4
Crystal Class (id 1 until 15)	80%	77.1%	72.9%	74.8%
Bestari Class (id 16 until 20)	54.7%	54.7%	29.3%	33.3%
Percentage Increasing	25.3%	22.4%	43.6%	41.5%

Table 1 shows the analysis of improved preschoolers' understanding of the Crystal classroom of teaching and learning through the use of Interactive Multimedia CDs compared to the classroom of Bestari who followed teaching and learning through conventional methods. A total of 15 respondents were tested using teaching method using Multimedia CDs and 15 respondents were tested using conventional teaching method

For the *Myself* title, Crystal class respondents showed 80% achievement compared to Bestari class respondents only 54.7%, an increase of 25.3%. For *Fruits*, on the other hand, Crystal class respondents scored 77.1% compared to Bestari class respondents, only 54.7%, showing a 22.4% increase. Meanwhile, Crystal class respondents scored 72.9% compared to just 43.6% of Bestari class respondents with a 43.6% increase over the *Animals* title. The last tested title was *Transportation* which also showed an increase of 41.5% where Crystal class respondent gained 74.8% compared to respondents from Bestari class only 33.3%. It is generally possible to conclude that the four topics taught using the Interactive Multimedia Technology method can improve preschoolers' English comprehension based on the results obtained through the post-test.

Table 2: Comparison of pre and post test

Test	List	Mean	Standard deviation	DF	t-valu	Sig. (2 tails)
Pre-test	30	7.93	3.912	29	.723	.000
Post-test	30	11.67	5.422			

Significant < .05

Table 2 shows that there were significant differences between pre test scores and post test scores where $p = .000$ showed $p < 0.05$ at 0.05 level of confidence. The results showed that the mean post-test value (mean = 11.67) was higher than the pre-test (mean = 7.93). It can be concluded here that the use of Interactive CDs enhances preschoolers' understanding of English subjects.

Objective of Study 2: identify changes in children's behavior in terms of their involvement in learning activities using the English Interactive Multimedia Technology compared to conventional methods.

Treatment Group Observation Results

i- CD-Multimedia Interactive can attract children to learn (Statement 1).

Based on the observations, it was found that children in the treatment group who were taught using the Interactive Multimedia CDs had learning experiences through learning that captivates them to the end of learning. Kids are very interested in the software on the Interactive CD. This method is very suitable for use in preschool classes for all the topics you have selected. This finding is in line with the findings of Latifah Abd Majid et al. (2011), who state that the elements of graphic design, text, color and sound enable children to pay close attention to learning as well as to their syllabus that meets the interest of children.

ii- The pictures and videos in the Interactive Multimedia Technology help children to understand the subject being taught more quickly (Statement 2).

The second statement shows a positive picture of the observation made. The teaching sessions for these four topics are very helpful for children to understand what they are learning more quickly. Children can answer the questions in the activity and perform well in each teaching and learning session. The findings of this study support the results of the study by Ronaldi Saleh et al., (2011) who found that through the study of Multimedia Interactive students with dyslexia felt motivated, fun, easy and helpful in better understanding the content of the lesson. This means that learning in this way helps children to understand what is being taught to them.

iii- Children do not get tired of learning using the Interactive Multimedia Technology (Statement 3).

The third statement refers to the behaviors observed when children are learning using the Interactive Multimedia CD. The answers also show children through learning that is not boring. It is evident that throughout the learning for all the titles the children enjoy and are very active in their activities. This behavior is also driven by a more conducive and comfortable environment than in the classroom. The findings of this study support the results of the study by Ronaldi Saleh et al., (2011) where the majority of students found that graphics and animations were interesting and kept their focus on learning materials.

DISCUSSION

Based on the findings, it is clear that the children in the treatment group far outperformed the control group. Percentage increase for topic Myself title by 25.3% with 80% achievement compared to only 54.7% for Bestari class. For the second topic Fruits the increase was recorded at 22.4% with a performance of 77.1% compared to 54.7% achieved by the Bestari class. On the other hand, the topic Animals showed a significant improvement of 43.6% with 72.9%

achievement compared to 29.3% in the Bestari category. The last topic of Transportation achievement difference was also significant at 41.5% with 74.8% achievement compared to 33.3% achieved by Bestari class.

The difference in achievement of the four topics taught clearly shows that using Multimedia Interactive CDs can improve pre-schoolers' English comprehension compared to conventional teaching. Elements of the software have been found to be extremely helpful in stimulating their thinking of learning new things. This finding is in line with the findings of Latifah Abdul Majid et al. (2012) and Bentley (2018) state that multimedia-assisted learning methods enhance interest and enhance preschool children learning performance.

This statement is also reinforced by the opinion of Syahrul Nizam (2009) who stated that the use of ICT in children is now a priority and helps support their learning. In addition, children are more easily drawn to and influenced by technological materials because they are colourful and attractive in accordance with their nature. Based on this observation, real children are more likely to understand what teachers are teaching using Interactive Multimedia CDs than children who are learning in a conventional way. This finding is consistent with the findings of a study by Latifah Abdul Majid et al., (2012) and NordinMamat et al (2019) that preschoolers understand what they have learned using multimedia. This understanding of learning is assessed through the activities and training provided in the software.

CONCLUSION

In conclusion, the findings show that learning English through the use of Interactive Multimedia CDs can enhance children's understanding while stimulating their interest in learning these subjects and creating a fun learning environment. As a result, preschoolers' learning activities become active and more effective. Overall, this study also proves that learning methods using Multimedia Interactive CDs are effective in changing children's behavior by increasing their interest and improving the English language performance of preschool children. The findings from this study suggest that the use of Interactive Multimedia CDs should be used more frequently by preschool teachers so that children can learn English more effectively and pay more attention to the teaching and learning process.

REFERENCES

- Auzar. (2012). *Keberkesanan Penggunaan Perisian Asas Membaca. Journal of Language Studies*. 12(2): 629-641.
- Bentley, D.F. (2018). An idea is in your body: Technology and transformation in the early childhood classroom. *Global Studies of Childhood*, vol. 8, 2: pp. 162-172
- Johnston, K. (2019) Digital technology as a tool to support children and educators as co-learners. *Global Studies of Childhood*. August. <https://doi.org/10.1177/2043610619871571>
- Latifah Abdul Majid, Wan Nasyrudin Wan Abdullah, Nurul Hidayah Ahmad Zakhi. (2012). Penerapan Nilai Murni dan Pembentukan Jati diri Kanak-kanak Prasekolah Melalui Penggunaan Multimedia. *Journal Hadhari Special Edition*, 51-65.
- Nicoletta Di Blas & Bianca Boretti. (2009). *Interactive Storytelling in Pre-School A Case-Study*,44-51.
- Nordin Mamat & Rosmidah Asong. (2014). Penggunaan cd multimedia interaktif dalam meningkatkan kefahaman bahasa inggeris dan mengubah tingkahlaku pembelajaran kanak-kanak prasekolah. *Jurnal Pendidikan Awal Kanak-kanak*. Jilid 3, 73-98.
- Mamat, N., Luen, L. C., Mustapha, M. C., Razalli, A. R., Radzi, N. M. M., &M.Hashim, A. T.. (2019). A Study of Multi-Ethnic Elements of PERPADUAN Pre-school Settings from Teachers' and Parents' Perspective.*International Journal of Academic Research in Business and Social Sciences*9(5), 996–1012
- Mamat, N., Luen, L. C., Radzi, N. M. M., Mustapha, M. C., Razalli, A. R., &M.Hashim, A. T .(2019).The Quality of PERPADUAN Pre-school Environment and Human Resources: Teachers' Satisfaction on their Career Development. *International Journal of Academic Research in Business and Social Sciences* 9 (5), 971-980.
- Ronaldi Saleh Umar, Fadilahwati Abdul Rahman, Fattawi Mokhtar & Nor Aziah Alias. (2011). Menggunakan Animasi di dalam Instruksi Khas untuk Kanak-kanak Disleksia, *Jurnal Teknologi Pendidikan Malaysia*, 1(2): 27-38.
- Sawsan Nusir, Izzat Alsmadi, Mohammed Al-Kabi& Fatima Sharadga. (2012). *Studying The Impact of Using Multimedia Interactive Programs at Children Ability to Learn Basic Math Skills*. 5(2): 17-32.
- Suzan DuyguEristi&SerifeDilekBelet. (2010). Teachers' and Students' Opinion about the Interactive Instructional Environment Designed for Bilingual Turkish Primary School Students in Norway. *Turkish Online Journal of Qualitative Inquiry*.1(1):3043.