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Applications of Education Games Based Local Culture to Increase the Ability the Concept of Numbers

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Abstract: **This study aims to find out the application of Education Games application based on local culture in improving the ability to recognize the concept of numbers in children in PAUD Melati DWP UNM. The approach used in this study using a qualitative approach. Type of research using Classroom Action Research consisting of two cycles including planning, implementation, observation, and reflection. Subjects in this study were teachers and learners PAUD Melati DWP UNM. Total number of learners 15 people consisting of 9 men and 6 women students. Technique of collecting data that is test and observation. Data analysis techniques used qualitative and quantitative data analysis. The result of the observation data was analyzed qualitatively, while the learners' learning result was giving the test, analyzed quantitatively by using descriptive data analysis. The result of the research shows that through application of Education Games application based on local culture, the ability to recognize the concept of number in Tulib group B children in PAUD Melati DWP UNM can increase, either from teacher teaching activity, children learning activity, or from result of student learning test, where in cycle I the ability to recognize the concept of the number of children are in enough categories whereas in cycle II the ability to recognize the concept of the number of children are in good category**

Keywords: **Media, Educational, Games, Local, Culture, Concept, Numbers.**

1. INTRODUCTION

Early childhood is the golden age (the golden age) is very potential to train and develop a variety of potential multi-intelligence possessed child. According to Kurniasih, 50% of intelligence development occurs at the age of 0-4 years and the next 30% occurs until the age of 8 years (Kurniasih, I, 2014; Indra Zultiar, 2016).

Early childhood potentials that need to be developed cover all aspects of basic skills, namely the physical aspects of motor, cognitive aspects, socio emotional aspects, language aspects as well as aspects of religious and moral values. Cognitive ability is one aspect of the basic ability of children who need to be developed through the provision of stimulus. Cognitive ability describes how the child's mind develops and functions so that it can think (Endang Suprapti, 2015; Oksimana Darmawan, 2016).

Children aged 5-6 years should have started developing an understanding of the concept of numbers. Permendiknas 146 stated that "children aged 5-6 years or kindergarten children of group B should have been able to name numbers when shown the symbol of the number, and mention the number of objects by counting". Furthermore in Permendiknas 137 it is explained that children aged 5-6 years have been able to name the symbols of numbers 1-10, using numeric symbols to calculate, and match numbers with number symbols (Borrower 137 years 2014). The concept of numbers becomes very important because it is a mathematical concept that must be mastered by the child, because it will be the basis for the mastery of subsequent mathematical concepts (Mollie Macgregor and Kaye Stacey, 1997; Suryadi Ishak, 2013)

One of the characteristics of early childhood is generally still difficult to concentrate on an activity in a long time, children quickly divert attention to other activities except the activity is fun, varied and not boring so to optimize the understanding of the concept of numbers in children required activities that vary and can interest and attention of children (Hartati, S., 2005; Endang Suprapti, 2015; Oksimana Darmawan, 2016).

Rapid technological developments, especially computers, bring an impact in the world of education in the use of computers. Computers can be used as an interactive learning medium. To facilitate the delivery of learning materials to children then this material is packaged in an interesting form of multimedia that is educational and entertaining for them. Therefore, it is necessary to apply the Education Games application for early childhood as an alternative learning media that is easy to learn and understand by children with edutainment concept (Hsiang-Ping Chen, Chi-Jui Lien, Len Annetta and Yu-Ling Lu, 2010; Nkopodi Nkopodi and Mogege Mosimege, 2009; Norshuhada Shiratuddin and Syamsul Bahrin Zaibon, 2009.

Based on the above descriptions, the researchers took the initiative to study in depth in a study entitled "Application of Media Application Education Based on Local Culture to Improve the Ability to Know the Concept of Numbers in Children in PAUD DWP UNM".

2. LITERATURE REVIEW

Media Applications Educational Games:

Education Games is an educational game, a game that contains educational elements designed and created to stimulate the child's mind and solve problems. Education games, which is a very fun activity and can be an educational way or tool (Ismail, A., 2006). Educational games include: puzzle, matching games, coloring, math games and more. The entry of the game in the learning process, gave birth to a fun atmosphere because the child can control the speed of learning in accordance with his abilities. Influence of Education Games on children among them can train ability to think and ability of children language. In addition, it can train fine motor and rough motor of the child so that learning through educative game can bring children in a pleasant learning atmosphere (Hsiang-Ping Chen, Chi-Jui Lien, Len Annetta and Yu-Ling Lu, 2010).

In addition, for the selection of games, efforts are made to all aspects of the child can develop well, both in terms of cognitive, affective and psychomotor. Therefore need to be supported the right tools when playing. The selection criteria for the tool so that the game can help learn optimally and there is no mistake in solving and determining the tools and materials needed in appropriate manner (Nkopodi Nkopodi and Mogege Mosimege, 2009).

Multimedia Applications "Education Games" for Early Childhood using Macromedia Flash 8.0 that implement learning system while playing. In the implementation, the material is packaged in the concept of multimedia-based exercise that is educational as well as entertaining considering the target of learning is early childhood.

Benefits from the "Education Games" multimedia app for Early Childhood are:

1) Train fine motor skills and gross motor in children. Smooth motor stimulation is obtained when the child holds the mouse or keyboard, and does the game. While rough motor stimulation is obtained when the child moves the mouse in a game, sitting and others.

2) Train concentration and improve children's intelligence and reasoning power.

3) Train the concept of cause and effect.

4) Through this educative game, the child will be trained in the concept of causation through the game presented. For example: when the child inputs correct / false answers, the computer will issue a voice response and the score increases / not. This will train the child to learn while understanding the cause of the answers.

Terms of education games are said to be good that is already dismantled pairs, have the power of fantasy and harmless (Zulkifly, 2003).

There are several factors that can affect the child's play is as follows:

1) Health. The healthier the child will be the more energy to play actively, like a sport game. Disadvantaged children prefer entertainment.

2) Motoric development. Children's games at any age involve motor coordination. Good motor control allows the child to engage in active play.

3) Intelligence. At every age, clever children are more active than the less intelligent, and their games show more cleverness. As they age, they show more attention in the game of intelligence, dramatics, construction, and reading.

4) Gender. Boys play more roughly than girls and prefer games and sports to other types of games.

5) Environment. Children from poor neighborhoods play less than other children because of poor health, less time, equipment and space.

6) Socioeconomic status. Children from higher socioeconomic groups prefer expensive activities, such as athletic competitions and rollerblading. While they are from the lower circle seen in activities that are not expensive, such as playing ball and swimming.

7) Amount of free time. The amount of playing time depends primarily on the economic status of the family. When household chores or jobs spend their spare time, children are too tired to engage in activities that require great energy.

8) Playing equipment. Child's play equipment affects the game. For example, the dominance of dolls and artificial animals supports mock games; the number of blocks, wood, watercolors, and candles supports constructive games (Hurlock, E, B., 2007).

Local Culture:

Local culture is a cultural characteristic of a local community group. Cultural values are understood as conceptions that live in the minds of most traditional societies as something of value in life (Sandarupa, 2011; Rosida Rakhmawati M, 2016; Elys Candra Yani, Boko Susilo, Funny Farady Coastera , 2016). Because of that value becomes the basis of human life and becomes the guideline when people will do something. The cultural values of a society can change. The occurrence of the change in values indicates that cultural values do not appear just like that. The cultural values of a society are produced, maintained and communicated through such media; educational media, economic systems, organizations, traditional ceremonies, traditional arts, and traditional architecture. We will not be able to reject the modernity of culture as a global consequence of the world. Every culture always changes from time to time. The change depends on the dynamics of the community. The change of cultural order is not only caused by external influences, but also due to internal influences due to the changing way of view of traditional society on the change of life and their livelihood (Faith Maina, 1991; Asa Oryza Al Aziz Hakim, Bambang Eka Purnama, 2012.

The Ability to Know the Numbers:

The ability to recognize the symbol of numbers in children is very important to be developed in order to gain readiness in following the learning at a higher level, especially in the mastery of mathematical concepts. Ability is the power to perform an action as a result of inheritance and practice ". Someone can do something because of the ability he has (Agisna Kartika Endah And Leonard, 2016; Reylan Jay Rubin, Jubert Marcelino, Royna Mortel and Minie Rose C. Lapinid, 2014).

The ability to recognize the concept of the number of children of kindergarten B is (a) to say (know the concept of numbers with objects) to 10, (b) make a sequence of numbers 1-10 with objects, (c) (d) differentiate and make two identical, unequal, multiple, and fewer sets of objects (Susanto, A., 2011; Mairead Greene and Paula Shorter, 2012).

The introduction of number symbols is appropriate for early childhood to prepare for further understanding of numbers. Therefore educators should provide stimulus and stimulus through strategies and the provision of interesting learning media so that children can recognize the symbol of numbers well.

3. RESEARCH METHODS

The approach used in this study using a qualitative approach. This type of research uses Classroom Research which consists of two cycles including planning, implementation, observation, and reflection. Subjects in this study were

teachers and learners PAUD Melati DWP UNM.dengan total number of learners 15 people consisting of 9 men and 6 women students. Technique of collecting data that is test and observation. Data analysis techniques used qualitative and quantitative data analysis. The result of the observation data was analyzed qualitatively, while the learners' learning result was giving the test, analyzed quantitatively by using descriptive data analysis.

4. RESULTS AND DISCUSSION

Based on qualification of observation result of teacher teaching activity cycle I meeting I was in enough category (C), while meeting II was in good category (B). Based on the results of these observations it can be concluded that the learning for the first cycle has not been successful. The results of observation of learning activities of children who have been exposed, the completeness of observation of learning activities of children cycle I meeting I was in the category of enough (C), while at the second meeting is in either category (B), Based on the observations it can be concluded that the learning cycle I have not succeeded. Furthermore, the learning outcomes show a cycle I category of developing very well at 0%. Category evolves as expected reaches 6 children or 40%. Unchained category of 9 children or 60%.

Less than optimal learning process on the first cycle of action because it is found there are some children who are less active in learning, telling about other things during the demonstration took place, and timid when given the opportunity to move to the front of the class. Such circumstances are possible because children are not yet accustomed to implement learning by practicing demonstrations on learning activities

In cycle II, the qualification of observation result of teacher teaching activity at meeting I is in good category (B), while meeting II is in excellent category (BS). Based on the results of these observations it can be concluded that the learning for cycle II has been successful. The qualification of observation result of learning activity of child at meeting I are in good category (B), while at meeting II is in very good category (BS). Based on the results of these observations it can be concluded that the learning through application media Education Games based on local culture for cycle II has been successful. Furthermore, the results of learning cycle II category developed very well to reach 8 children or 53.33%. Category evolves as expected by 7 children or 46.67%. While in the category does not grow by 0%.

Based on the success of the child, it shows that teachers have tried to improve the way of teaching using the method of learning through educational games based on local culture so that the learning outcomes of children increases

5. CONCLUSION

Based on the results of research and discussion that have been stated before, it can be concluded that through the application of Education Games application based on local culture, the ability to recognize the concept of the number of children in Tulip group B class in PAUD Melati DWP UNM can increase, both from teacher teaching activities, children, as well as the results of student learning tests, where in cycle I the ability to recognize the concept of the number of children are in enough categories whereas in cycle II the ability to recognize the concept of the number of children are in either category.

REFERENCES

[1] Agisna Kartika Endah Dan Leonard, 2016. Pengembangan Desain Pembelajaran Matematika Akselerasi Tingkat SD Berbasis Bakat dan Minat. Prosiding Seminar Nasional Pendidikan Matematika, FTMIPA Unindra. 20 Agustus 2016.

[2] Asa Oryza Al Aziz Hakim, Bambang Eka Purnama, 2012. Perancangan dan Implementasi Sistem Pembelajaran Aksara Jawa untuk SD Berbasis Multimedia di SDN Bumirejo 02. Indonesian Jurnal on Computer Science Speed - FTI UNSA Vol 9 No 3: 55-61.

[3] Elys Candra Yani, Boko Susilo, Funny Farady Coastera, 2016. Rancang Bangun Aplikasi Edugame Slider Puzzle Keanekaragaman Budaya Bengkulu dengan Menggunakan Linear Congruent Method (LCM), Jurnal Rekursif, Vol. 4 No. 3: 257-269.

[4] Endang Suprapti, 2015. Peningkatan Pembelajaran Matematika Anak Usia Dini dengan Microsoft Powerpoint Ispring pada Materi Pengenalan Konsep Bilangan. Jurnal Pedagogi, Volume 2 Nomor 2: 1-21.

[5]   Faith Maina, 1991. Culturally Relevant Pedagogy: First Nations Education in Canada. The Canadian Journal of Native Stucfes XVII, 2: 293-314.

[6]   Hartati, S, 2005. Perkembangan Belajar Pada Anak Usia Dini, Jakarta, Depdiknas.

[7]   Hsiang-Ping Chen, Chi-Jui Lien, Len Annetta and Yu-Ling Lu, 2010. The Influence of an Educational Computer Game on Children's Cultural Identities, Educational Technology & Society, 13 (1), 94–105.

[8]   Hurlock, E, B,. 2007 Perkembangan Anak, Jakarta, Erlangga.

[9]   Indra Zultiar, 2016. Analisis Implementasi Pembelajaran Dengan Menggunakan Media Alat Permainan Edukatif (APE) Untuk Mengembangkan Kecerdasan Jamak Anak Usia Dini. Jurnal Kajian Pendidikan dan Pengajaran, Volume 2, Nomor 2: 89-100.

[10] Ismail, A,. 2006 Education Games, Yogyakarta, Pilar Media.

[11] Kurniasih, I, 2013. Implementasi Kurikulum 2013, Surabaya, Kata Pena.

[12] Mairead Greene and Paula Shorter, 2012. Building Conceptual Understanding in Precalculus, Transformative Dialogues: Teaching & Learning Journal Volume 6 Issue 2: 1-16.

[13] Mollie Macgregor and Kaye Stacey, 1997. Students' Understanding of Algebraic Notation, Educational Studies in Mathematics 33: 1–19.

[14] Nkopodi Nkopodi and Mogege Mosimege, 2009. Incorporating the Indigenous Game of Morabaraba in the Learning of Mathematics. South African Journal of Education, Vol 29 :377-392.

[15] Norshuhada Shiratuddin and Syamsul Bahrin Zaibon, 2009. Local content game: The preferred choice for mobile learning space, Proceedings ascilite Auckland.

[16] Oksimana Darmawan, 2016. Penanaman Budaya Anti Kekerasan Sejak Dini Pada Pendidikan Anak Melalui Kearifan Lokal Permainan Tradisional (Instill Anti-Violence Culture At Early Stage of children Education Through Local Wisdom Of Traditional Games). Jurnal Penelitian HAM, Volume 7, Nomor 2: 111-124.

[17] Phaedra Mohammed and Permanand Mohan, 2011. Integrating culture into digital learning environments: studies using cultural educational games. Caribbean Teaching Scholar, Vol. 1, No. 1: 21-33

[18] Reylan Jay Rubin, Jubert Marcelino, Royna Mortel and Minie Rose C. Lapinid, 2014. Activity-Based Teaching of Integer Concepts and its Operations, Presented at the DLSU Research Congress 2014 De La Salle University, Manila, Philippines March 6-8, 2014.

[19] Rosida Rakhmawati M, 2016. Aktivitas Matematika Berbasis Budaya pada Masyarakat Lampung. Al-Jabar: Jurnal Pendidikan Matematika, Vol. 7, No. 2: 221 – 230

[20] Sandarupa. 2011. Kearifan Lokal Antikorupsi http://nasional.kompas.com/read. Diakses pada 09 Januari 2017.

[21] Suryadi Ishak, 2013. Pengembangan Perangkat Pembelajaran Kooperatif Berbasis Teori Dienes pada Materi Operasi Penjumlahan dan Pengurangan Bilangan Bulat. Jurnal Pepatuzdu, Vol. 6, No. 1: 1-12.

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