



The Development Mobile Application with App Inventor for Young Learners in Establishing Anti-Corruption Behavior

Zaenurokhman Pipit Wicaksono✉, Edi Waluyo

Department of Early Childhood Teacher Education, Faculty of Science of Education, Semarang State University, Indonesia

Article Info

Received April 2018
Accepted May 2018
Published June 2018

Keywords:

mobile application;
anti-corruption; the develop-
ment of media learning;
preschool; app inventor

Abstract

There are so much effect caused by globalization, one thing that is affected is the world of education. The world of education requires people to think more creative and innovative. That's made humans to be more advanced in live their life in this modern era. But, the development of technology doesn't just have a positive impact; it also has a negative impact. One of it is the corruption behavior, which is an extraordinary crime that hurt many people. This research aims to develop modern media learning that is mobile application which have a theme 'anti-corruption for young learners'. This research is a Reach and Development Research that begin with problem analysis, needs analysis, product design, design validation, and the final product trial. This research used quantitative descriptive analysis. The result of validation show that media is feasible to used as media learning , according to media specialist appraisal 81.5% and 80.3% according to material specialist. The result of effectiveness of mobile application show that the distribution t, if $dk=9$ obtained from $dk n-1=10-1=9$, with an error 5%, then the price of t-table 2,262. If the price of t same with H_a , then H_a can be accepted. Based on calculation, $t = 23,917$ which falls on the acceptance of H_a which means rejection by H_o . Then it can be concluded that there is a significant differences between the effectiveness of learning using mobile application and the conventional method. Besides that, learning with mobile application can improve the behavior of anti corruption, honesty, responsibility, courage, lawful, openness, discipline, simplicity and hard work.

INTRODUCTION

Indonesia is a maritime country who has big natural resources and human resources. This caused by Indonesia as an archipelago country. Indonesia is always increasing year by year, which is economy aspect, socio-cultural aspect, political and educational aspect.

One of the dominating aspects is an education sector. Education is the most important aspect, because it is important to educate people. It is also human needs and obligatory to learn. Education is regarded as a long term investment for the people, so education should get the attention from every circle of people.

Kuraesin (2013) explains that education is a conscious and well planned effort to educate the learners to develop their potential to obtained the spiritual, intellectual, noble, and skill which needed by themselves, society, and country. There are 2 educations, education formal and informal.

Education is very important for the future. That's way it is make a preschool education is more important, because preschool education educate children in the growth period. Preschool education is based on the law of national education system paragraph 1 point 14 UU No.20/2003 affirms that preschool education (PAUD) is an effort to educate children under six years old to improve and development their skill and courage, so children will be ready to continues the primary school or next level of education.

The implementation of preschool education in Law No.20/2003 paragraph 28 Point 3 and 4, stated that 'Preschool education in the formal form is Kindergarten (TK)/RaudhatulAthfal (RA), or the other equivalent form, while the preschool education in informal form is Playgroup (KB), Childcare (TPA) or the other with similar form.

Preschool education is different with while we talking about primary school, or senior/junior high school or college. In preschool, child as a teaching object, they are not really learned, they still playing, but playing in the different meaning. Because in children world play is learning, they collect everything to develop themselves from playing. Therefore, in a process of preschool education requires a big motivation, patience, supervision/protection and continues control like Ki HajarDewantara philosophy: *ingngarso sung tulodo, ingmadyamangunkarso, tut wurihandayani*

In Globalization era, education is influenced by so many things, there are government transitions, government's regulations and the improvement of information that can be accessed all

the time and of course the development technology that affect in all things in human life. The development of technology can not be avoided because technology advances will proceed according to scientific progress (Ngafifi, 2014)

The development of technology should be a valuable science for a country because the knowledge of information is a prestige and indicator the advance of a country. On the other hand technology can be a bad influence for human, it can make a misery for human being if human can not used well. For example, there are persons who used it for corruption.

The noun corruption comes from Latin word 'corrumpere' meaning 'to break'. Engaging in corruption can 'break' or destroy someone's trustworthiness and good reputation with others. Oxford English dictionary defines corruption as an unnatural act of integrity through bribery. In this context, corruption is as an unnatural act (Handoyo, 2013:20).

The corruption behavior sometimes happens in our daily life. For an example is when a five year old child is given money that should be used for infaq (sadaqah) or saving but they used it to buy snack or something else, while playing with friends they borrow their friend's toys but not asking the permission first, hiding toys for his own benefit when playing with friend, lying, say unreal amount when calculating. This case is often happen in child world, but people always think that it is not a big deal. Of course this case happens in so much child, but if we don't care it will be a bad behavior for child when they grow up.

Childhood is a period of growing and developing, the bad behavior will become the foundation if we left continuously. We can not just let it go. Why, if we just let it go, it same with we let our country is destroyed by that bad behavior. Begin with that little thing we as people who has been educated must think creative and innovative to get rid that bad behavior. One of them by use the technology we must be able to prevent things that can damage our gold generation. With the creation of anti-corruption education game applications we help this country become advanced and make the young generation with integrity; it becomes very easy because in this globalization era, young generation has been using gadget or smartphone in daily lifes. This is in line with the results of research by Montessori (2012), she said that the characteristics of anti-corruption education is the need for a proper synergy between the use of information and knowledge possessed with the ability to make moral considerations. There-

fore anti-corruption learning can not be implemented conventionally, but must be designed in such a way that aspects of cognition, affection and conformation of students can be developed optimally and sustainably.

Based on observations in daily life we often see children about 5-6 years old used a Smartphone when going around. *Republika.co.id* explains that:

About two million children under eight years old have tablets. Their parents also feel worried if their children feel incomplete if not playing gadgets. Parents are also worry about losing control over what children will see, watch or see through the gadgets that are used. Based on the survey results, one of three kids start using a Smartphone when they are three years old. One in 10 kids enjoys gadgets at age of two years old. This phenomenon shows the child's addicted to gadget.

Creativity and innovation are very needed in this era of technology. We as human beings will be difficult to keep off of technological development. In education world teachers, students and learning environment is interrelated to the success of the learning objectives. This is related to the appropriate and varied use of media in the learning process can increase learning motivation and can reduce the student's passive attitude. (Herdianto, 2005).

In this globalization era, the system education not only using the conventional system, but with the modern system either. Because of the development of technology the process of learn is easier than before. For example, in 2010, there's only formal school that use computer, projectors and laptops, and since 2016 there are so much preschool use these tools. This is equivalent with the result of the research about information and communication technology (ITC) which applied in Tegal and Brebes obtained 73,6% in understanding about how to using the technology, know how to use internet for obtain the information and supporting professionalism as teacher in a professional competence (Astuti dan Waluyo, 2014 : 2)

The development of technology will make teacher easier in explain and teaching in class, also, that make learner easier to get information from what teacher has given. This learning process will be great if there is an innovation to push or make education better. Improving the learning process with a media will grow children with a good foundation and they will be an agent of change to fix the problem in their country or their world.

Mobile learning is a learning media in a Smartphone, or sometime we called it with 'mobile application'. Mobile learning is one of alternative development of learning media. (Motiwalla, 2007). Mobile learning has a function to fit out the learning media and give an opportunity to children to learn in anywhere or anytime (Rizal et al., 2013). Learning through Smartphone will be more practical because we can do it in everywhere or everytime.

Data from IDC (international data corporation) 2015 android hold 82,8% in market share smartphone worldwide, iphone operating system hold the second place with percentage 13,9, followed by windows in the third place 2,6%, and Blackberry in a fourth place with 0,3% market share. The success of Android is all because it is 'open source', that's mean everyone can provide their software, can develop and distribute their application without need to pay any license, it is all free.

The development of technology makes the educational practitioners or teachers wants to make some learning media in the learning process, so learning in classroom can be variant, not only use a conventional method, but also use a modern method. The meaning of the modern method is teacher use computer or other media to make class more interested; it will make class so fun and not monotone. With a visual media, will grow the curiosity of children, and build children consecration (Mukminin, Handayani and waluyo, 2010). Based on that case and based on the observation, the researcher intends to make research with title *The Development of Application Inventor for Young Learners in Establishing Anti-Corruption Behavior*

RESEARCH METHOD

We have to use the research method to find, develop, and test something to know the truth (Hadi, 2004:4). The method in this research is research and development (R&D). According to Sugiyono (2009) research and development method is a method to produce a particular product, and then verify that product. The final product is not always hardware, but also software.

The procedure of this research is adopted from Borg and Gall method that has 10 steps with a descriptive model in order to produce some product. level 4 (Sugiono, 2015:47).

Research and development research takes a long time to make some product so, I just used the method to know the competence before and after used mobile application. The population of

this research is TK B Paud Lab School UNNES's students' year 2017/2018, and I used the random sampling with just use 10 students from TK B. This research use questionnaire method and then measure with likert scale, and the analysis technique data in this research use pretest and posttest then measure with SPSS application.

RESULTS AND DISCUSSION

The result of this research is through several steps, there are the validation process, and the test effectiveness of the product. Based on the assessment of the material master and media master, the final result of validation explain that this product worth to apply for student.

According to the master of media, mobile application anti-corruption get 75 or 81.5% percentage total value from 23 point of instrument, so it can be conclude that the product is very worth to apply in classroom. Based on the master of material, mobile application get 67.5 or 80.3% from 21 point of instrument and it also can be conclude that the product is very worth to apply in classroom. Based on that result, from the master of material or the master of media, this product is really good to be applying in class.

To obtain the result, this research begins with doing some trial to the product. The object is the 10 student TK B PAUD Lab School UNNES.

The final process in this research is test the product of mobile application. This process is applied the product to the class. We do this thing to know how student response about the new media. The test of effectiveness is comparing the conventional method with the modern method which is learning with mobile application about anti corruption.

The test use paired t-test and sample t-test to prove the effectiveness, influence and the relationship between the mobile application media and student improvement. The result from the paired samples statistic table show $113.00 > 85.20$, its mean there is an improvement after use mobile application media.

Based on the correlation paired sample table, the result of using this media obtained 0.823 or 67% which proving that use the mobile application make a big improvement to children. To assess the effectiveness of the media is done by two-sided test and is shown by paired samples test table with significance $\alpha = 5\%$. Based on the paired samples test table, the t value is 23,917 with the significance level (Sig. (2-tailed) = 0,000) less than $\alpha = 5\%$, then H_0 is rejected and accepting H_a . It can be concluded that mobile application

is effective.

Sugiyono (2012:415) explain that if there is new media learning, the competence of student will be improved. The development of learning media 'mobile application' is worth to apply in class because it improved the honestly responsibility of the children.

Based on observation, Lab School Unnes never give about anti-corruption learning. That's make the quality of learning is weak. When the researchers applied the product here, there is some improvement happen to the student. We can see in the result of the t-test. The test show mobile application learning give 67% value with first average 85.2 to be 113.00, it is high value, so it can be concluded that there is improvement in a anti corruption behavior on student.

There is nine values of anti-corruption behavior media, there are, honest, care, independent and discipline, responsibility, simplicity, work hard, brave and fair. All of this value include in learning videos, learning story and game. Mubayyinah (2017) explain that children will more easily learn by giving the examples and see the media directly. Another opinion said that children will more enthusiasts when use an interesting media.

The anti-corruption behavior must be improved day by day, because it has so many functions. There is 1) instrumental function 2) ego defense 3) Knowledge 4)the behavior of value.

CONCLUSION

Based on the research, the results of validation of material experts, media, learning practitioner's show the media is declared feasible, can be applied on students. The final result of the study shows the effectiveness test of the media is the analysis of correlated sample test data or t-test test (paired sample t-test) to assess the effectiveness of learning media anti-corruption mobile application for early childhood, showing $t_{count} > t_{table}$ ($23,917 > 2,262$) and significance ($0.00 < 0.05$) H_0 's conclusion is rejected. Then it can be concluded that there is a significant differences between the effectiveness of learning using mobile application and the conventional method. Besides that, learning with mobile application can improve the behavior of anti corruption, honesty, responsibility, courage, lawful, openness, discipline, simplicity and hard work.

REFERENCES

Astuti, M. D., Waluyo, E. (2014). Pemahaman Dan

- Implementasi Ict Pada Guru Tk Yang Telah Memiliki Komputer Dalam Membuat Perangkat Pembelajaran Di Kabupaten Tegal Dan Brebes. *BELIA: Early Childhood Education Papers*, 3(1).
- Cinar, O. 2012. *Android Apps with Eclipse*. New York: Springer.
- Dewanti, H., Sri, S., Mukminin, A., & Waluyo, E. (2010). Penerapan Pembelajaran Berbasis Komputer sebagai Dasar Pengenalan Teknologi Informasi pada Guru Taman Kanak-kanak di Kota Semarang. *Jurnal Abdimas*, 14(2).
- Firasaty, O., & Astuti, H. P. (2017). The Creativity of Early Childhood Painting through Media Waste in Islamic Center Kindergarten Brebes. *BELIA: Early Childhood Education Papers*, 6(2), 98-102.
- Hadi. (2004). *Metodologi Research 2*. Yogyakarta: Andi Offset
- Hanyono, E. (2013). *Pendidikan Anti Korupsi*. Semarang: Ombak.
- Hasjiandito, A., Adiarti, W., & Wantoro, W. (2015). Religious Topic: The Effectiveness of Learning Media Based on Powerpoint. *Indonesian Journal of Early Childhood Education Studies*, 4(2), 111-115.
- IDC. *Smartphone OS Market Share*. 2015. <http://www.idc.com/prodserv/smartphone-os-market-share.jsp> (accessed Januari 6, 2016).
- Indarwati, I., & Diana, D. (2017). The Effectiveness of Manipulative Scales Media in Children's Group B Measurement Concept Ability At TK Negeri Pembina Sragen. *Indonesian Journal of Early Childhood Education Studies*, 6(1), 48-53.
- Islammeiliani, D., & Khamidun, K. (2017). The Effect of Blocks Constructive Game to Improve Children's Fine Motor Skill in the Year of 4-5 Years Old. *BELIA: Early Childhood Education Papers*, 6(1), 6-9.
- Jinlong, Geng, Sun Zhaolei dan Teng Yawei. (2012). Mobile Learning Research- based Intelligent Mobile Phone and 3G Networks. *Jurnal IEEE*. Hlm. 1238-1242
- Kamus Besar Bahasa Indonesia (KBBI). Jakarta: PT Gramedia Pustaka Umum.
- Kurniadi, A., & Ciptono, C. (2015). Bola Tangkup: A Media to Stimulate Gross Motor Skills' Children with Visual Impairment. *Indonesian Journal Of Early Childhood Education Studies*, 4(2), 86-89
- Kusaerin, I. (2013). Pengembangan Keterampilan Berhitung Pada Anak Usia Pra-Sekolah Melalui Kartu Angka di Taman Kanak-kanak TK Ketilang Sukahurip Kecamatan Cihaurbeuti Kabupaten Ciamis. *Laporan Karya Ilmiah*
- Lickona, Thomas. 1991. *Educating for Character: How Our Schools Can Teach Respect and Responsibility*. USA : Bantam Book.
- Montessori. (2012). Pendidikan Antikorupsi Sebagai Pendidikan Karakter Di Sekolah. *Jurnal Ilmu Politik dan Kenegaraan*, UNP, Vol 11
- Motiwalla, L.F. (2007). *Mobile Learning: A framework and evaluation*. " *Computers & Education*
- Mubarok, F. 2015. *Pengembangan Media Pembelajaran Berbasis Mobile Application Menggunakan App Inventor Pada Mata Pelajaran Mekanika Teknik Untuk Siswa Kelas X Studi Keahlian Tgb Smk Negeri 3 Yogyakarta*.
- Mubayyinah, F. (2017). SEMAI: Sembilan Nilai Anti Korupsi dalam Pendidikan Anak Usia Dini. *Al-Hikmah: Indonesian Journal of Early Childhood Islamic Education*, 1(2), 223-238.
- Muliawan, Jasa Unggul. 2009. *Manajemen Play Group dan Taman Kanak-Kanak*. Jogjakarta: Diva Press.
- Nasional, Perpustakaan. 2011. *Anti Korupsi Untuk Perguruan Tinggi*.
- Ngafifi. (2014). Kemajuan Teknologi Dan Pola Hidup Manusia Dalam Perspektif Sosial Budaya. *Jurnal Pembangunan Pendidikan: Fondasi dan Aplikasi*, 2(1), 2014
- Prianto, D. (2009). *Pengembangan Multimedia Pembelajaran Berbasis Komputer*. Jurnal Pemikiran Alternatif Kependidikan STAIN Purwokerto. Vol.1
- Republika. Survei: Jutaan Anak Usia SD Kecanduan 'Gadget'. 2014. <http://www.republika.co.id/berita/trendtek/gadget/14/01/17/mzjj2x-survei-jutaan-anak-usia-sd-kecanduan-gadget> (diakses Agustus 2017)
- Rumiyati, R., & Khamidun, K. (2017). The Application of Geculan Bocah Dance in Improving Children's Social Emotional Development Aged 5-6 Years in Pertiwi Kindergarten, Pakis Sub District, Magelang Regency. *BELIA: Early Childhood Education Papers*, 6(2), 108-112.
- Sari, D. K., Handayani, S. S. S. D., & Tasuah, N. (2017). Application of Media Booklet to Improve Language Development (initial reading) on Children in Kindergarten Kemala Group B Bhayangkari 34 Kendal. *Indonesian Journal of Early Childhood Education Studies*, 6(2), 125-131.
- Sugiyono. (2009). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*, Bandung: Alfabeta.
- Sugiyono. (2012). *Metode Penelitian Kuantitatif Kualitatif dan R&B*. Bandung: Alfabeta.
- Sugiyono. (2015). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta
- Syakura, A. (2015). *Pendidikan Anti Korupsi Dalam Perspektif Psikologi Anak*.
- Windarti, R., Wulandari, D. 2017. Investment Nationalism Value in Children Age 5-6 Years Reviewed From Application of Media Papan Jodoh Pancasila in TKIT Al-Husna Mayong Jepara District. *BELIA: Early Childhood Education Papers*.