

TRAINING PROGRAM FOR THE MAKING OF EDUCATIVE GAME TOOLS FOR TRAVELING TRAFFIC GAMES FOR (CASE STUDY: TK & PAUD TEACHERS, PALMERAH, WEST JAKARTA)

¹Fauzi, K. ²Dendhy I.W.

^{1,2}Industrial Engineering Department, BINUS Online Learning,
Bina Nusantara University, Jakarta, Indonesia 11480

fauzi.khair@binus.ac.id

Abstract

This community services activity in the field of science aims to improve the ability of kindergarten teachers and PAUD tutors in making educational Game Tools for traffic signs for learning knowledge about traffic discipline on the highway so that learning activities are fun and useful. This activity is divided into several training schemes with the aim of (a) Making educational traffic aids in kindergartens and PAUD, (b) Designing and implementing quality learning and (c) evaluating the learning of basic knowledge about traffic discipline oriented to safety and security. Training in the form of workshops and assistance in making learning systems and teaching prototypes. The output of PKM is the compilation of training modules and scientific articles on integration in the field of engineering and basic education studies which become a reference for the development of learning systems in kindergarten and early childhood education

Keywords: PAUD, Educative Game Tools, prototype

Introduction

Early childhood education (PAUD) is a means of education to develop behaviour and basic abilities in children optimally. The National Education System Law Number 20 of 2003 explains that Early Childhood Education (PAUD) is a coaching effort aimed at children from birth to six years which is carried out by providing educational stimuli to help develop and develop physically and mentally so that children have readiness. in entering further education. PAUD and Kindergarten are formal education in the early childhood education pathway that educates children aged 4-6 years. At this age, the development of children occurs very rapidly so that the proper and proper stimulation during the learning period aims to develop all aspects of the child's development so that they can maximize their potential. These developmental aspects include aspects of religious and moral values, social emotional aspects, cognitive aspects, language aspects, and motor physical aspects. The development of all these aspects can be done in learning.

In supporting education and the learning process, media is important in supporting learning. Learning media is an introduction to learning messages (Sudarisman, 2011). The media functions as an intermediary or introduction to learning messages to children so that there is a common perception of what the teacher gives and what the child receives. Learning media can be in the form of visual, audio, and audio-visual. The existence of learning media is important in early childhood learning considering the ability of children who are only able to receive learning in concrete forms (Widyantini & Sigit, 2010). The use of media really helps children in understanding learning in a concrete way, but also the suitability of the media and material to be delivered needs to be considered so that the material presented can be fundamentally accepted by the child (Wahyudi, W., & Nurhayati, N., 2019).

The education levels of kindergarten teachers and PAUD tutors are varied, there are disparities or gaps in the level of education that a professional kindergarten or early childhood educator should meet. Referring to PP. 19/2005 concerning National Education Standards in articles 28 and 29 states that early childhood educators must have adequate academic qualifications and competencies as learning agents. The academic qualifications that must be met by PAUD educators are a minimum of four diplomas (D-IV) or undergraduate (S1). Other requirements include, among others, a higher educational background in early childhood education, or psychology; and has a teacher professional certificate for PAUD. PAUD Educator competencies that must be fulfilled include: (a) pedagogical competence, (b) personality competence, (c) professional competence, (d) social competence.

Based on the identification results of the target audience, it turns out that there are still many kindergarten teachers and PAUD tutors who have not met the academic qualifications and competencies as mandated in this Government Regulation. Teaching experience for kindergarten teachers and PAUD tutors with high school / equivalent academic qualifications has generally been teaching for over five years. Meanwhile, his professional training experience is still very minimal.

Based on the results of interviews conducted informally by researchers with teachers in the field, it shows that most parents want their children to have reading, writing, arithmetic, and social interaction skills including discipline skills on the road. Knowledge and information for discipline on the road is an important factor in fostering children's discipline and compliance from an early age. Safety and comfort factors in traffic need to be instilled from the start so that awareness will grow to comply with the rules and comfort on the road either as a pedestrian or a driver. Meilanie and Faradiba (2019) state that one of the efforts to improve education and national insight is social education, citizenship, and Pancasila in the life of the nation and state including education from an early age.

Based on this, it is necessary to providing-assistance for kindergarten and early childhood teachers in developing modules, good teaching aids to introduce the traffic discipline system to the children of students. Teachers and teachers need to be provided with supplies in making teaching aids that are safe and easy for children to understand from an early age. Based on the analysis of the situation of the target audience as stated above, the problems that can be identified are as follows:

- a) The unavailability of quality and adequate cross-demonstration educational games in kindergarten and early childhood education
- b) The minimum ability of teachers to develop quality and adequate road information learning in kindergarten and early childhood education institutions
- c) The lack of teachers' abilities in planning information learning activities and quality and fun traffic discipline in kindergarten and early childhood education institutions
- d) The lack of teacher's ability to evaluate and develop public transportation learning evaluation tools in kindergarten and early childhood education institutions

In accordance with the chosen topic of community service activities, this program is limited to the Assistance and Training Program for Making Traffic Demonstration Educational Game Tools for PAUD Tutors, Palmerah District, West Jakarta.

Research Methods

This community service activity is carried out on an ongoing basis, from February to August 2020. Community service activities carried out are carried out in stages, including:

1. Strengthening the understanding of kindergarten teachers on the importance of educational aids for early childhood
2. Socialization of the development of educational props

3. Introduction to materials and the theory of making educational props
4. Practice making educational props
5. Measurement of program implementation results
6. Evaluate the results of the learning system.

The implementation of community service activities is illustrated in the following cycle:

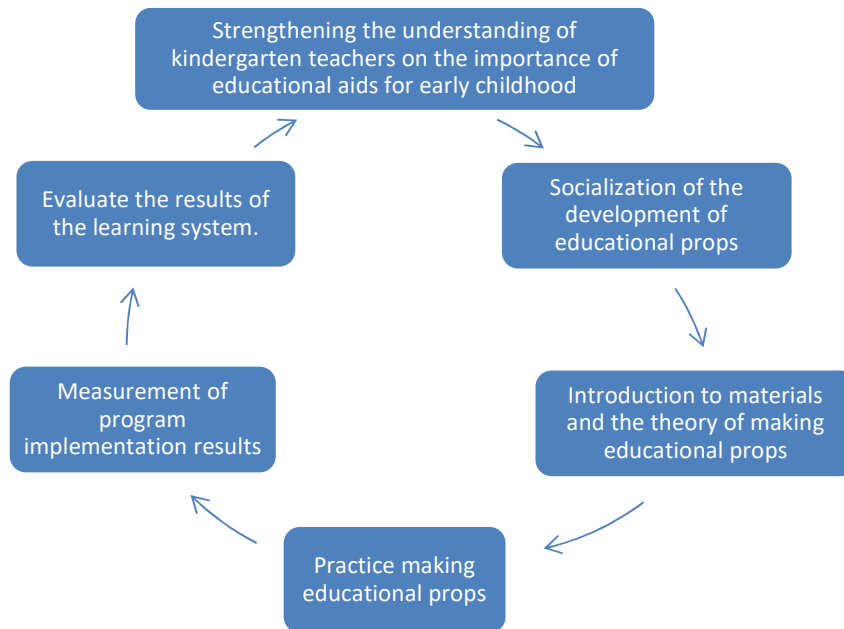


Figure 1. The Cycle of Implementing Community Service Activities

This community service activity is carried out in partner schools by providing training in making learning media in the form of educational props to teachers from various materials. The service team brings in resource persons who are experts in the field of making educational media, namely the head of kindergarten schools and lecturers in the Department of Industrial Engineering at Bina Nusantara University.

The implementation of this community service is carried out by the following methods:

- a. The lecture method is a form of socialization, adds insight and equates the perceptions of kindergarten teachers and principals regarding the importance of educational props for early childhood and kindergarten children. Various developments regarding educational aids including the development of types, patterns, designs and materials were conveyed to kindergarten teachers and principals to serve as inspiration in making teaching aids and using them in classroom learning. The lecture, discussion and question and answer methods are used as a means to motivate teachers and school principals.
- b. Guided practice methods. The training method in the form of the practice of making educational aids that are made directly by the training participants accompanied by resource persons is carried out in order to cultivate skills in the training participants in making educational aids such as made from waste that is easily found in the training participants' environment. The ability of kindergarten teachers and school principals to produce educational teaching aids will be a way to realize the efficiency of media procurement in schools.

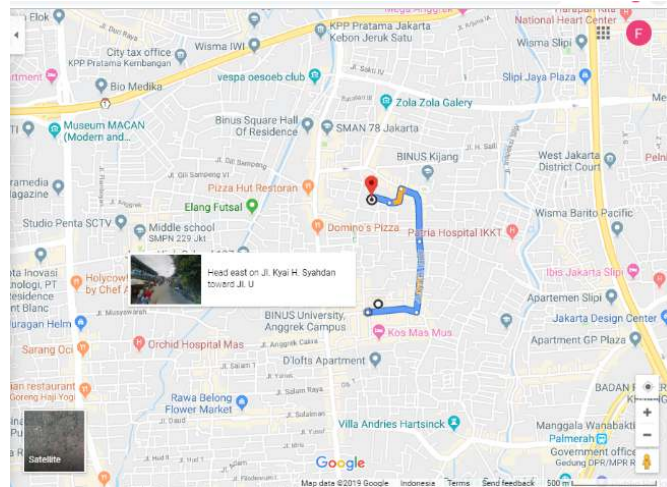


Figure 2. Map of Community Service Location Areas
(The distance from the University to the Partner is about 1.3 KM)

Community service activities were carried out for Kindergarten (TK) teachers and principals in Palmerah, West Jakarta. Community service activities produce educational props made of materials that are easy to obtain. The following is a series of activities to produce educational teaching aids:

- a. In the community service activities, the speakers first reintroduce educational props to teachers and school principals. Not all kindergarten teachers in partner areas have PAUD teacher education, some of them are high school graduates, are currently studying PAUD teachers but some are currently studying. Audience diversity requires the holding of a common perception of educational aids.
- b. The resource person explained about the definition of educational aids, and the function of educational aids. The use of educational aids that are appropriate to the child's level of development will help teachers develop all the basic abilities possessed by early childhood.
- c. Educational props will help with physical growth and other aspects of children's development. According to Dale's cone of experience, early childhood is very appropriate to be given learning using media in the form of artificial objects that can be observed and touched directly. Here's an overview of the cone of Dale's experience:

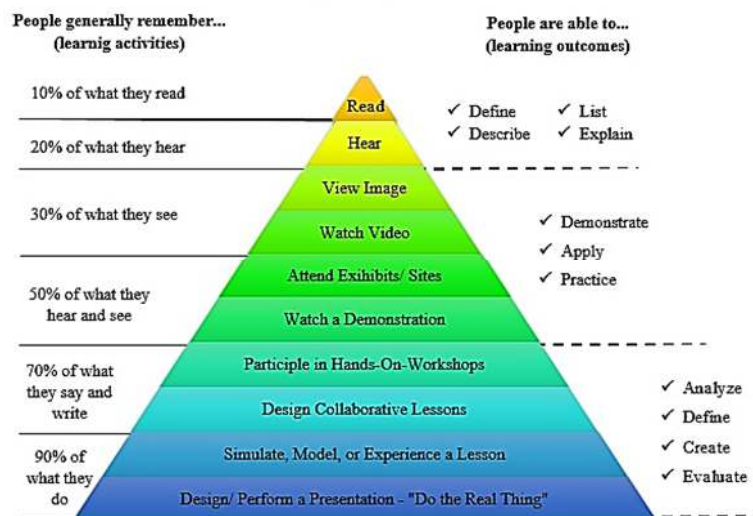


Figure 3. Dale's Learning Pyramid (Beverly Davis, Michele Summers, 2014)

Result and Discussion

The results of the evaluation at the training stage of making traffic educative aids, obtained the following: a) assistance during the training process by the PKM team went well; b) teachers in partner schools are enthusiastic in making props and actively ask questions if they are not clear; c) teachers in partner schools are interested in developing learning media for traffic discipline. The results of the evaluation at the simulation stage and testing the use of teaching aids in learning, obtained the following:

1. The simulation of the use of traffic props by the PKM team running well,
2. Teachers in partner schools enthusiastically participate in simulation activities and actively ask questions if they are not clear
3. Teachers in partner schools are enthusiastic in trying out the teaching aids in learning traffic discipline in their class,
4. students in the learning trial class

In the learning process, students' learning experiences are very important. This experience will form an understanding if supported by learning aids, which serve to concretize abstract material. Thus, learning aids or so-called teaching aids will function properly if they can provide a meaningful, active and enjoyable learning experience for students. It can be said that the teaching aids have a very big role for the teacher, to convey the subject matter to students (Sukayati and Suharjana, A. 2009).

Based on observations, questions and answers and discussions with teachers in partner schools, both in training, simulation, trial and evaluation activities, it appears that the teachers are eager to participate in every activity carried out by the PKM team. Some participants considered that activities like this needed to be held and the implementation time was increased, so that more teaching aids were practiced in making and using them in learning about traffic discipline in the classroom. Teachers in partner schools also feel that they have benefited from the teaching aids provided at the school along with the guidelines for their use, so that they can use these props in the learning they do in class.

Conclusion

The training on making traffic props and their use in learning in PAUD and TK in Palmerah running well. The partner teachers are enthusiastic about participating in a series of PKM activities. They are interested in making simple props and trying to use them in traffic learning. They get new knowledge about how to use teaching aids that can make their learning interesting and fun. So that it can increase students' interest and understanding in learning and comply with traffic rules from an early

age. This community service can still be continued, especially in terms of making and using teaching aids in learning about traffic discipline in schools so that it can help and make it easier for students to understand and comply with traffic rules from an early age.

Acknowledgment

The PKM team would like to thank the CDA (Community Development Academic) of BINUS University for supporting and guiding the smooth implementation of this program.

References

- Davis, B., & Summers, M. (2015). Applying Dale's Cone of Experience to increase learning and retention: A study of student learning in a foundational leadership course. In Engineering Leaders Conference 2014 on Engineering Education (Vol. 2015, No. 4, p. 6). Hamad bin Khalifa University Press (HBKU Press).
- Meilanie, R.S.M., Faradiba, Y., 2019. Development of Activity based Science Learning Model with inquiry Approaches. *Jurnal Pendidikan usia Dini*. Vol. 13, pp:86-99
- Kementrian Pendidikan dan Kebudayaan, 2005, STANDAR NASIONAL PENDIDIKAN PENDIDIKAN TINGGI DALAM PP No. 19 tahun 2005. (Online accessed: March. 30th. 2020, <http://www.kopertis3.or.id/html/wp-content/uploads/2010/07/snp-pt-dalam-pp-no19-tahun-2005.pdf>)
- Sudarisman, S. (2011). Pembelajaran Sains Pada Pendidikan Anak Usia Dini Melalui Hands on Activities Based on Daily Life untuk Anak. *Prosiding Seminar Internasional ke-3 dan Workshop Pedagogik Praktis yang Berkualitas* (p. 320-335). Bandung: Universitas Pendidikan Indonesia.
- Wahyudi, W., & Nurhayati, N. (2019). Pelatihan Pembuatan dan Penggunaan Alat Peraga Matematika dan IPA bagi Guru SD dan SMP di Desa Tanjung Saleh. *Jurnal Pengabdian Masyarakat MIPA dan Pendidikan MIPA*, 3(1), 43-47.
- Widyantini, T. H., & Sigit, T. G. (2010). Pemanfaatan Alat Peraga dalam Pembelajaran Matematika SMP. Yogyakarta: Direktorat Jenderal Pendidikan Dasar Dan Menengah Departemen Pendidikan Nasional.