

FUN & LEARN 3R: A PLAYBOOK FOR PRE-SCHOOL KIDS

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ABSTRACT

Fun & Learn 3R is an educational playbook focusing on 3R concepts. It is designed for pre-school kids. Pre-school kids in Malaysia are lacking of environmental exposure because environmental education is provided to primary and secondary level students. Furthermore, there is a lack of suitable activities for pre-school kids to expose to environmental education. Therefore, this playbook is created as an edutainment learning tool for pre-school kids to obtain some early exposure of environmental knowledge. The main objective of this game is to develop visual perceptual skills and environmental interest among pre-school kids through a fun learning approach. In terms of its novelty, it comes with various hands-on and interactive activities to develop kid's environmental knowledge. Besides, it can also enhance the kid's psychomotor and visual perceptual skills which are important in their early learning stage. The benefits of this product are: i) it is easy to play ii) it builds early awareness iii) it helps to train environmental lovers who are able to save our natural resources and wildlife iv) reduce pollution. It is suitable to be used as a teaching aid by pre-school teachers or parents. Fun & Learn 3R is a superlative edutainment learning tool in 21st century.

Keywords: 3R, edutainment, environmental, playbook, pre-school

1. INTRODUCTION

The importance of education and environmental awareness in early childhood is a holistic concept of the natural world as well as emotions, tendencies and skills (Davis Elliot, 2003). This education brings many benefits to young children, which include the development of curiosity, appreciation of nature, opportunities to experience nature and respect for other beings. This also includes the development of problem-solving skills, and the responsibility of children in protecting and preserving the environment as well as enabling children to care more about their environment (Wilson, 1997). Environmental problems have caused many countries, including Malaysia, to realize the importance of environmental education in applying young people to concepts through formal or informal education. However, environmental education should not only teach at the school level but also at home where parents or guardians play an important role through leadership such as not throwing garbage and saving water (Abdul Malek, 2016). Therefore, the need for awareness is to continue to educate the community especially the younger generation on environmental issues and promote action to reduce damage to the environment is very important (Ibrahim et al., 2011).

2. ENVIRONMENTAL EDUCATION

In the 1960s, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) and other organizations started promoting environmental education in the hope of raising global awareness on environmental issues (Kopnina, 2011). Environmental education is an educational process on the environment to improve the living standards of the people. It is also regarded as a long-lasting process in which people and the community gain awareness of their environment and obtain the information, values, ability, practices, and determination which enable them to solve current and upcoming environmental problems (Sonneborn, 2001). Ak and Kutlu (2015) sees environmental education as the lifelong learning process for people understanding the complex natural world and the relevant issues. Similarly, Lee et al. (2016) assert that environmental education as that educators concerned about the environment, including current or possible environmental problems in the education process and containing environmental competence in the related course and teaching activity into the education design. Dymont et al. (2014) stated that environmental education was the process aiming to achieve the improvement, the education process to clarify concepts and form value, and the knowledge, skills and attitudes required for human development. According to Genc et al. (2017), environmental education is the process of cognitive value and concept interpretation to develop, to understand and to appreciate skills and attitudes needed for the mutual relationship among humans, culture and the creature and physical environment. Meanwhile, Grol et al. (2017) identified environmental education as an education development targeting at the correlation between people and the natural environment, allowing the public understanding the relationship between humans and environment through education.

3. REDUCE, REUSE AND RECYCLE (3R)

According to National Solid Waste Management (2015), “reduce” means cutting down the number of products and types of products that can be used and consumed while “reuse” refers to making use of items repeatedly. “Recycle” is the third component of 3Rs waste hierarchy and is defined as a resource recovery method involving the collection and separating wastes and then re-process into new products for consumption. Recyclable materials such as glass, paper, aluminium, plastic, textiles, and electronics can be processed into new products. The 3R policies that need to be adhered are preventing final disposal in landfills, securing resources in countries experiencing rapid economic growths and obtaining synergetic effects on waste management, protecting natural resources, and reducing Greenhouse Gases (GHG) emissions (Sakai, S. et al, 2011). The 3Rs concept must be introduced to children to enable them cultivate their attitude of caring for the environment. Mahat et al. (2016) stated that understanding the concept of 3R should not be only on paper but also through activities or projects.

4. CONCLUSION

In a nutshell, numerous numbers of environment or green campaign have been organized either by non-government organizations, companies, education institutions, local authorities and government as well, as one of the alternatives in cultivating the environment problems. The utmost aim of the organized campaign is to create an awareness and to educate people on the important of appreciate the nature. Hence, this playbook is created to educate and to enhance an awareness especially on 3R (reduce, reuse and recycle) from the young age. It is hope that this playbook can improve their ecological behavior by taking care of nature as part of their life.

REFERENCES

1. Abdul Malek (2016). Towards Preserving the Environment for Future Generations, Pulau Pinang: Universiti Sains Malaysia.
2. Ak, O. and Kutlu, B. (2015), "Comparing 2D and 3D game-based learning environments in terms of learning gains and student perceptions", *British Journal of Educational Technology*, Vol. 48 No. 1, pp. 129-144, available at: <https://doi.org/10.1111/bjet.12346>
3. Davis, J. & Elliott, S. (2003). *Early childhood environmental education: Making it mainstream*. Canberra, Australia: Early Childhood Australia.
4. Dymont, J.E., Davis, J.M., Nailon, D., Emery, S., Getenet, S., McCrea, N. and Hill, A. (2014), "The impact of professional development on early childhood educators' confidence, understanding and knowledge of education for sustainability", *Environmental Education Research*, Vol. 20 No. 5, pp. 660-679, available at: <https://doi.org/10.1080/13504622.2013.833591>
5. Genc, M., Genc, T. and Rasgele, P.G. (2017), "Effects of nature-based environmental education on the attitudes of 7th grade students towards the environment and living organisms and affective tendency", *International Research in Geographical and Environmental Education*, No. 2, pp. 1-16, available at: <https://doi.org/10.1080/10382046.2017.1382211>
6. Grol, R., Sent, E.M. and Vries, B.D. (2017), "Participate or observe? Effects of economic classroom experiments on students' economic literacy", *European Journal of Psychology of Education*, Vol. 32 No. 2, pp. 1-22, available at: <https://doi.org/10.1111/joes.12196>
7. Ibrahim, N.A., Osman, M.M., & Bachok, S. (2011). The level of awareness towards environmental issues and concern among students in tertiary level: Case study of universities students in Kuala Lumpur and Klang Valley of Malaysia. *Proceedings of 11th International Congress of Asian Planning Schools Association*, University of Tokyo Hongo Campus, Tokyo, Japan.
8. Kopnina, H. (2011). Revisiting education for sustainable development (ESD): Examining anthropocentric bias through the transition of environmental education to ESD. *Sustainable Development*, 22(2), 7383. doi:10.1002/sd.529
9. Lee, C.S., Hayes, K.N., Seitz, J.C., DiStefano, R. and O'Connor, D. (2016), "Examining motivational structures that differentially predict engagement and achievement in middle school science", *International Journal of Science Education*, Vol. 38 No. 2, pp. 192-215, available at: <https://doi.org/10.1080/09500693.2015.1136452>
10. Mahat, H., Mohamad, S. Y., and Ngah, C. 2016. 3R Practices Among Moe Preschool Pupils through the Environmental Education Curriculum. available at: https://www.shs-conferences.org/articles/shsconf/abs/2016/01/shsconf_psu2016_04002/shsconf_psu2016_04002.html
11. Sakai, S., Yoshida, H., Hirai, Y. et al. International comparative study of 3R and waste management policy developments. *J Mater Cycles Waste Manage* 13, 86–102 (2011). <https://doi.org/10.1007/s10163-011-0009-x>
12. Sonneborn, C.L. (2001), *Educating Engineers About Sustainable Energy: An Overview of the Issues*, Institute for Sustainability and Technology Policy (ISTP), Murdoch University, Australia (istp@central.murdoch.edu.au).
13. Wilson, R. (1997). Environmental Education; A sense of place. *Early Childhood Education Journal*, 24 (3), 191-194.



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