

Chapter 9

E.C.E.D 2.0: Easy Carry Easy Display for Outdoor Learning in Preschool

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ABSTRACT

Teaching and learning in this period of pandemic COVID19 were very challenging and consume a lot of effort in ensuring student maintaining their interest and momentum in learning. E.C.E.D 2.0 is a product which design for preschool teacher and it also benefit to the student's education. The improvement from previous E.C.E.D design which the benefit was mainly focused for teacher. Further exploration and development of this product are needed to expand the benefit to the student as well as to the teacher while having outdoor learning. When action research is carried out by the researchers in a few preschools in Sibul, Sarawak, the feedback from teachers, parents and also students who are collected as qualitative data. Based on these triangulated data, E.C.E.D 2.0 is well accepted as an innovative product which is users-friendly, less space consuming with cost effectiveness. The spirit to explore new aids that can bring benefits in education will be encouraged and further exploration. It will teach or delivered more than a knowledge for the students compare with reading a book. The innovation of this product is encouraged to meet current and future needs of 21st century classrooms in the country.

Key Words: Preschool aids, quantitative data, action research

1. INTRODUCTION

From the earlier collected data and reflections by the preschool teachers, there is a lack of outdoor learning activities conducted by the preschools in Malaysia. Currently, the preschool education is prior important to children development. It starts to catch the attention of the Ministry Education in Malaysia (KPM). Starting year 2009, there is a standardized in preschool curriculum. However, the preschool nowadays are still concentrating more to classroom learning. The main barriers of lack of outdoor learning is because there are no suitable facilities to help on teaching and learning while conducting outdoor activities. The preschool teachers are facing difficulties on moving the teaching aid

outdoor. Moreover, there is no suitable place to display and store the artworks of students while conducting outdoor activities.



Figure 1: E.C.E.D. 2.0

The Version 2 of E.C.E.D is a new and improved edition of the previous version of E.C.E.D. To offer greater sturdiness, the version 2 uses acrylic board as the main material for the body. The foundation to hold the acrylic board are the steel bars. The Multi colour LED in E.C.E.D version 2 helps to brighten the display platform's surroundings. It features a bright different colour to grab the pre-schooler's interest, just like the previous version of the product. The LED has different frequency to catch the attention of children. It also comes with a handle and a roller for convenient to carry. Adjustable Trolley of E.C.E.D. cube and the trolley could be separated. This is very convenience for storing the product. In this version, three faces of the product are slottable. The slot allows acrylic boards act as the whiteboard. Furthermore, the size of the new version of E.C.E.D. is bigger and could able to produce a bigger storage capacity.

2. LITERATURE REVIEW

Izani Mat (2020) et. all emphasize on the importance of having art appreciation in the education of Malaysia. The result of this openness of knowledge can create enrichment of knowledge and soul of the nation and at the same time can create confidence and identity of Malaysia. An example can be seen from the pattern of appreciation mentioned earlier, where in appreciating art we usually use Western patterns but in appreciating art that is regional we must combine regional patterns with universal patterns. Finally, with the full appreciation of art in Malaysia will create a nation with a strong identity to be an example to the outside world in facing the era of globalization.

Haifa Aljabreen (2020) stated that Waldorf learning system is important especially in art-focused era. The youngest children learn to emulate the teacher from the beginning of their growth (Nordlund 2013). The purpose of “learning through doing” in nursery, preschool, or kindergarten is to “learn through doing” (Edmunds and Barton 2004, p. 18).

At these early years, Waldorf education follows the notion that "stories, music, quality materials, and behaviour worthy of imitation foster physical growth, language development, and behaviour worthy of imitation." Natural art activities, which build the child's spiritual sensitivity and awareness of the environment around him/her, are one of the key ways utilised to transmit the Waldorf curriculum (Dancy 1989; Easton 1997; Lim 2004; Walsh and Petty 2007). "By providing an attractive setting, the Waldorf system encourages teaching as an art form, and artistically presenting topic matter" (Easton 1997, p. 9).

Cherise Tan Sheau Ping (2019) et. all stated that art education is essential in life since it fosters creativity, communication, and intelligence (Maneen, 2016; Savva & Trimis, 2005; Terreni, 2016). The curriculum art education was established to build visual literacy skills generations, according to the National Philosophy of Education (FPK) (Subramaniam, 2017; Tekiner, 2006) in Malaysia. As a result, the school environment should have an impact on students' knowledge, and appreciation of visual art, which can be influenced through murals, banners, and statues. (Kementerian Pendidikan Malaysia, 2017) Students can learn art appreciation to broaden their horizons in art education (Law, 2010). This method can help students improve their communication abilities, gain self-confidence (Ariffin, 2010), and learn how to communicate (Novakovi, 2015). The focus of art education research should be on by incorporating characteristics of comprehension, appreciation, and appreciation into the producing process of the arts (Ismail, 2015). Classroom teachers must enhance and guide the process of conducting art appreciation workshops. The teacher, on the other hand, is always more concerned with creating artwork than with art appreciation sessions in the classroom (Setiawan, 2007). As a result of skipping art appreciation sessions in the classroom, those students were left with a lack of art knowledge, which included an awareness of the elements of art and design principles in the creation of art appreciation. The artist must be able to comprehend and grasp the aspects of art as well as design principles. These factors must be incorporated into the teaching process for art teachers. Despite the fact that many approaches and activities have been done to ensure that students learn the visual arts language in writing and listening, the study discovered that pupils still lack the necessary capabilities to have an appreciation for art (Ariffin, 2010; Ibrahim, 2007).

3. FOCUS OF E.C.E.D 2.0

Emphasizing 6C development of the 21st century learning skills among students as shown in Table 1.0 below:

Table 1.0: 6C Development in E.C.E.D 2.0

6C of PAK21	Implementation in ECED 2.0
Character	Pupils develop positive characters during outdoor fun learning brought by easy management ECED product. Pupils have more chances to interact with natures when outdoor activities.
Critical Thinking	The display artwork allows pupils to appreciate and reflect so as allow critical thinking of oneself Find and acquired more informative skill from the display of teachers or other friends' work.
Citizenship	Display of chart and magnetic pictorial cards can help pupils to understand and identity as well as cultivate the spirit of patriotism
Creativity	Teachers take into account and implement new ideas and solutions or technique or other charts to allow pupils to explore and gain more creative idea to be developed.

6C of PAK21	Implementation in ECED 2.0
	Pupils can easily think outside the box, creative, innovative, realistic, improve their own quality of life through outdoor learning experiences.
Communication	During outdoor activities brought by ECED, pupils can play and learn in more open area, and thus, easier communication of pupils and teachers freely. Self-learning approaches by outdoor interaction activities allow communication of pupils with the nature (as nature's talk)
Collaboration	ECED allows more collaboration activities with many other partners eg. Parents, neighbours etc.

4. METHODOLOGY

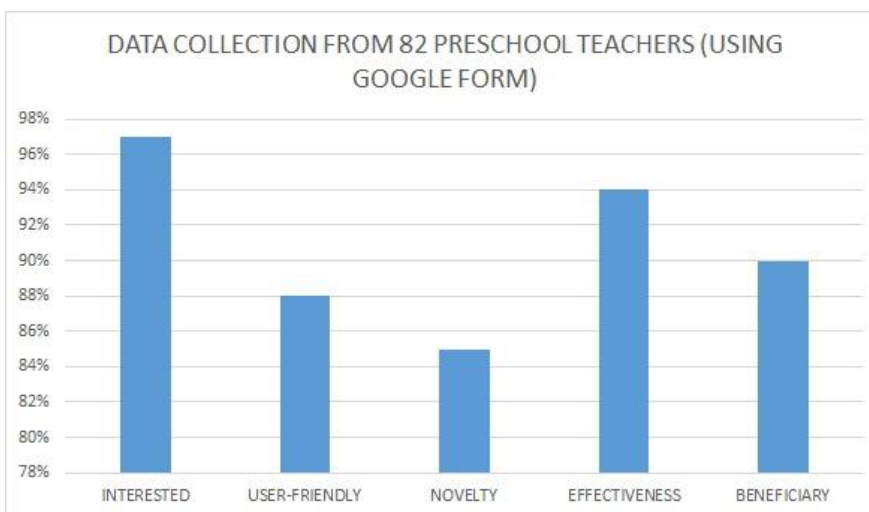
Project development of E.C.E.D. 2.0 is self-initiated and exploratory by team members over 2 years in schools working collaboratively with various pre-school teachers. When the product E.C.E.D 2.0 was developed, pilot studies and action research were carried out in 2 pre-schools in the central zone of Sarawak. Data was collected through observation, interviews and questionnaires that are created using Google Form. The total number of 82 preschool teachers of the middle zone of Sarawak.

4.1 Observation

Researchers have made observations in terms of the convenience and the usage of E.C.E.D 2.0 during the teaching and learning lessons. Furthermore, researchers observe students’ responses and interaction with E.C.E.D. 2.0 during the teaching and learning process conducted outdoor.

5. FINDINGS AND DISCUSSIONS

After data collection from two pre-schools, E.C.E.D. 2.0 learning tools are recognized as having an effective impact on the outdoor teaching and learning sessions. It is well accepted by teachers and students during the researchers.



Besides, the above quantitative data, researchers also collected qualitative data through interview and observation, as shown in the table below. After manual thematic approach to analyse the qualitative data, its findings summarized as in the Table 1.0 below

Table 2.0: Qualitative Data of ECED 2.0

Aspect	Raw data	Keywords/ conclusion
Advantages of ECED	R1: I am interested with the product as it has large storage to carry the teaching aids to outdoor.	Interested
	R2: can be used to many purpose....	Multifunctional
	R3: It really helps a lot to solve most of the problems faced during outdoor learning.	
	R4: ... effectively provide a place to display outdoor teaching material.	
Area of Improvement of ECED	R1: ... could be more flexible in the design	More flexible
	R2: ... could add in musical tools to attract the children	
Weakness of ECED	R1: ... it would be perfect if have waterproof function	Water resistant

6.0 CONCLUSION & RECOMMENDATION

E.C.E.D 2.0 enables active learning among the preschool teachers and preschoolers with fun and convenience. Table 2.0 shoes the benefits of E.C.E.D 2.0 of outdoor teaching and learning session.

Table 3.0: The Benefits of E.C.E.D. 2.0

STRENGTH	DESCRIPTION
Novelty	Well received by preschool teachers in outdoor learning activities Own invention and not yet sold in the market Focus on innovation objectives
Benefit to the user	User friendly easy to carry all the way out of the classroom creating meaningful & fun learning. Allow teachers to conduct instruction outside of the classroom Improve the efficiency of outdoor learning activities
Benefit to the society	To develop critical and creative thinking Develop greater social skills during outdoor learning Develop soft skills to improve their personality, attitude, flexibility, motivation, and manners
Commercialization potential	Well received by preschool teachers Helps preschool teachers in providing spaces for students by exposing themselves to the outside world Enhances students' moods of learning
Awards/ recognition received	Gold award in e-Seminar of the national level in 24-25 June 2020 Miri, Sarawak

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