

Development of Active E-Learning Model and Application (Mye-Mik) to Develop The Creative Imagination Skills of Preschool Students: Pilot Study

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Abstract

The purpose of this study was to design active e-learning models and applications to develop the creative imagination skills of preschool children. This pilot study was conducted qualitatively through structured interview and observation. The sampling of the study involved preschool children around the central zone of Peninsular Malaysia only. The data has been analyzed by using the Atlas.ti software. The main contribution of this study is to get a brief information on the production of a basic model of fostering creative imagination skills and active e-learning modules that contain procedures, techniques and activities, as a guide for teachers to integrate the creative imagination skills of preschool children in Malaysia.

Keywords: Creative Imagination, Preschool, E-Learning, Model

Introduction

Creative imagination is a skill that can be taught (Puccio & Figliotti, 2014) and developed to be inculcated in children to face the challenges of the 21st century. In 1950, Guilford had urged for the study on creative imagination to be multiplied and deepened, but the society at the time considered creative imagination as a set of special individual characteristics such as personality, cognitive ability, motivation and divergent thinking skills (Niu & Sternberg, 2003). Awareness about the importance of environment factors such as family, society, education and culture towards creativity only arise since two decades ago in which education was assumed as the most powerful in affecting the creativity of an individual (Aasar, 1993) and a factor that could be controlled by society compared to others (Levine, 1996). Therefore, people started to question about the roles of vital elements in education such as the curriculum, school, and teachers in developing students' creativity, skills, attitude and ability (Levine, 1996).

There are two elements that should be concerned in developing the creative imagination for preschool children which imagination and expression. According to Susan (2010), the level of creative imagination at children early stage is high and some researchers relates it with

fantasy behaviour. Therefore, the children must be given chance and enough space to fantasize and imagine to enable them to think creatively in the future. Egan (1999) asserted that creative imagination is a needs in ensuring children's cognitive always thinking and creative. Meanwhile, Gadsden (2008) stated that the students' learning outcomes as a result of creative imagination behaviour will allow individual to place themselves in the skin of another, to experience others' reality and culture, to sit in another space, to transport themselves across time, space, era in history, and context, and to see the world from a different vantage point.

The mind exploration occurs to children without limitation when they are doing creative imagination. In the context of education, it is a skill that can be taught systematically (Puccio & Figliotti, 2014; Craft et al., 2012; Smith & Mathur, 2009; Torrance & Myers, 1970). The most critical time to teach children this skill is at child's early stage because they are by nature have high curiosity and sensitive towards the changes of stimulation. Pfeiffer (2012) had introduced the model of Creativity from a Talent Development Perspective (CTDP) that showed experience ables to enhance behaviour level and stimulates the development of creative imagination and critical thinking. If the children are not given any chance to use and express their creative ideas by using creative approaches and materials, therefore their position as naturely creative will be stunted (Pfeiffer & Thompson, 2013).

In the context of education in Malaysia, the National Preschool Standards-Based Curriculum (KSPK) had been developed to meet the new policy demands under the Malaysian Education Blueprint (PPPM) 2013-2025. The creative imagination skill in children educational development had long been recognized by Malaysia Ministry of Education (KPM) and now becomes as a part of the main elements in Themes Core Modules of KSPK (KPM, 2013). Creative imagination and critical thinking have been explained as ability to produce or invent something new with value by using pure imagination force. It is also a nature potential that existed in all children. Therefore, the creative imagination skill shall be developed and cultivated deliberately and planned since early schooling through teaching and learning process that used various methods and approaches.

Literature Background

A study conducted by Cheung (2012) proved that the students learned when they fantasized because they abled to choose their own learning materials. Many researchers acknowledge that fantasy and imaginative behaviors in children help self-development by strengthening social, cognitive, physical and emotional domains (Ginsburg, 2007). But, a study in United States showed declining trends of children's creativity because of several factors which children spent longer time for watching television or playing video games compared to involving in activities that were creative in nature or stimulate the imagination, as well as weaknesses in building children's creativity at the school level and the routine practice of teachers (Kim, 2011; Weinstein et al., 2014; Runco, 2015). This problem also occurred in preschool education system in Malaysia where the comprehension related to creative imagination skills and its implementation were always being questioned.

Studies show that the creative imagination domain less successfully improved at the preschool level due to the implementation of teacher teaching that is not in line with the aims

and objectives contained in the KSPK and DSK. This situation is very worrying because the development of children's creative imagination is started at an early stage of their age (Kim, 2011). However, some teachers argue that children who often fantasize are weak and easily lose focus in learning (Aida & Wan Zah, 2009). Meanwhile, authoritarian teachers assume that students only need to learn what is taught within the scope of teaching that has been structured (Booren et al., 2012). This kind of teaching will cause the chances of children to fantasize, imagine and play will get stuck resulting on the creative expression of children are being hindered and stunted (Soh, 2017; Kavitha & Manonmani, 2014; Mellou, 1996). Besides, the reality of teaching implementation of current preschool curriculum is prioritize more on academic achievement (Latifah et al., 2012), its practice is in formal form and its learning only on memorization of letters and numbers (Astriya & Kuntoro, 2015).

Such emphasis forces children to sit still and only listen while learning. This is due to pressure from certain parties and stakeholders that cause teachers to focus more on memorization learning (Astriya & Kuntoro, 2015; Moyles, 2014; Prentice, 2000). Such trend usually happened in private preschool, but preschool under MOE nowadays also starts to give the same focus towards children academic achievement due to rivalry. The use of the latest ICT applications in learning is also marginalized as most teachers are unskilled. In fact, some teachers think that ICT is the cause of children's fantasies and devout. Teaching materials provided by the teachers also unattractive and do not encourage the children to interact with themselves. This situation occurred because the preparation of teaching materials at preschool level do not take account into the children's level of thinking. For example, books and various flashcards provided by the teachers are seen as unenjoyable toys for the children. This kind of teaching approach will restrict children's tendency to play and do creative imagination (Soh, 2017).

Until this moment, there is no guidance for teachers to prepare teaching materials and suitable activities to develop the creative imagination skills among normal children compared to genius and gifted children that have special curriculum and guidance for teachers to teach them (Runco et al., 2010). In line with this development, many researchers argue that every child is entitled to the opportunity to develop their creative imagination skills and this effort should be done from an early age of school. Unfortunately, the teachers always assume that the effort of nurturing creative imagination skills should be done as an additional activity outside the classroom or extracurricular (Kim et al., 2013) and its planning is done separately from the teacher's usual daily teaching activities. This is because creative imagination skills often being assumes as the responsible of gifted children's teachers and not enshrined in the curriculum of preschool education in general.

Next, model or guidance for preschool children to cultivate creative imagination skills among children mostly designed by Western researchers. The aspects of its usability and feasibility among preschool teachers in Malaysia are relatively low because they are too complex and hard to understand. For example, Child Responsive Model of Giftedness (Callahan & Miller, 2005), Creative Micromoments (Beghetto, 2009) and Schoolwide Enrichment Model (Renzulli & Renzulli, 2009). Although the preschool teachers tried to applied it in teaching, but they always shackled by the perception of "if there is enough time" (Kim et al., 2013). As a result, many preschool teachers tend to neglect the efforts to nurture creative imagination skills and

pay more attention to other skills that have become routine in children's early education curricula.

In education context of Malaysia, the cultivation of creativity and innovation are suggested through two approaches which applied in all pillars through teaching and learning activities, and through music and visual arts education. Unfortunately, the further explanation is not given to help preschool teachers in applying the supposed approaches. Usually, the teachers that taught preschool children are described as someone who able to increase children's potential level and skills, but a study showed that most of them unable to help in fostering the values of personality, creativity, imagination and aesthetic appreciation (Wong & Lau, 2001). In addition, when preschool children always being presented with a routine of situation and behaviour, they will assume that the behaviour is precise and being recognized (Ng, 2001). As a result, the children will just follow the ways and ideas of their teachers without learning how to imagine and how to think to produce their own creative ideas.

Therefore, ICT element had been included in teacher's teaching to attract children's attention as proposed in KSPK and DSK. According to Miller and Almon (2009), children's creative imagination skills will quickly develop when they choose their own activity and learning materials which directly encourage them to actively involve by physical and mental, and this non-literal characteristic will build self confidence, self believe and intrinsic motivation. Most of this process occurred when children interact and learn to use ICT application that meets children's interest and development of children early education. The integration of ICT in preschool children's learning is very suitable because they are easily attracted to active learning which is the combination of student centred activity, multimedia presentation and interactive features (Esa et al., 2007). The use of ICT will gain children's interest to focus on contents, materials and activities of teacher's teaching, and helps children to collect and understand difficult information with easier methods (Esa et al., 2007; KPM, 2001).

Yet, the use of ICT application in learning also marginalized due to most preschool teachers are less skilled. A study conducted on 30 preschool teachers showed that only 56% used ICT in teaching and learning compared to frequency although 82% of them know the use of ICT can help children to master domain skills as mentioned in DSK (Nuraimi & Farizah, 2017). Meanwhile, authoritarian teachers are fear of losing power in the classroom because the integration and application of materials in ICT are more on student centered (Savenye, 1993; Hannafin, 1999). Besides, studies also showed that most application of teaching materials and activities based on ICT are not suitable due to its behavioral suggestions and learning outcomes do not describe the local practice, culture and environment although they are easy to find in market and have free access (Mohamed et al., 2014). In addition, other researcher stated that the weakness of software design is the reason of preschool children are not using ICT in their teaching (Rahman et al., 2013). Besides, large expenditures and allocations are required to get the latest application and to cover the maintenance cost if high quality application of e-learning materials based on ICT are going to use (Yahya & Roselan, 2015).

Based on the policies and principles contained in KSPK and MOE, the researcher agreed that all preschool children in Malaysia need to be exposed to various forms of experiences and stimuli includes the application of active learning materials based on the latest ICT so that

they have the opportunity to develop creative imagination skills in themselves. Thus, we are designing a basic model to cultivate creative imagination skills and an active e-learning module that contains suitable procedures, techniques and activities with preschool children's thinking level for guidance of preschool teachers in Malaysia.

Methodology

This pilot study was conducted qualitatively by using structured interviews and observations. For the sample of study was 10 preschool students and their teachers at government school located at Perak. The data was used to determine suitable contents, application and active e-learning activities to enhance creative imagination skills of MOE's preschool children. The age of the preschools students were 6 years old was selected from two classes, Class A and Class B. There were a guidelines used in this phase namely lists of active e-learning activity frameworks to enhance children's creative imagination which obtained from literature references, and software of Interpretive Structural Modeling which build by Sorach Incorporation named Concept Star. The objectives of this pilot study conducted, because the validity and reliability of the instrument is very important to defend the instrument from exposed to study defects. Validity is used to measure the accuracy of a measurement used in the study. Validity means the agreement between two attempts to measure maximally similar features with different methods (Campbell & Fiske, 1959).

Findings and Discussion

Data analysis has been done to see the results of the study of application-based learning Kahoot game! in the learning of the English language towards student achievement and interest. Data collected and analyzed from structured interview to answer the following research questions.

RQ: What is the design of the active e-learning application model and software that is appropriate to develop skills imagination-creative preschoolers?

To answer this question, the data from the results of semi-structured interviews that has been conducted to show the existence of interest in student learning. There are several themes that have emerged from the results of the data analysis.

Theme 1: Game-based learning Kahoot! student fun

As for example, almost all of the respondents involved said that the were having fun and enjoying the learning process by using the Kahoot Games.

Student 1 : "Yes, I really enjoy the games and I love learnt English today".

Student 3 : "I enjoyed the games..."

Student 5 : "Yes, teacher...I enjoy the games...it was fun...can we have again tomorrow...?"

Student 8 : "I thought it was boring because I don't know how to play, but it was fun..."

Student 10 : "I like, teacher..."

(School A, Class B)

Based on the findings, game-based learning Kahoot! It was given an effect to learning performance and students interest in learning. The findings of the study show that students successfully improve their performance in learning. It can be seen from the achievement from the given task on paper writing for the first time before they played the games activity. The increasing scores was showed for the second times when the Kahoot games was applied. The game application Kahoot! in English language teaching sessions help students learn with a better performance. This E-learning application can increase students' interest and motivation towards their learning. These preschools students are also actively involved in class activities and show a sense of enjoyment for learning. This study is in line with the findings of Armadi & Wan Muna study (2021) which applied learning based games in language teaching. The study found that the game environment can build competitiveness in learning and bring students to interact each other. This game-based learning is seen to be effective in improving student achievement. E-learning is seen to be able to develop imagination and creative skills

in the classroom. There is a high level of engagement and inspiration can be evoked in students when playing the games. Indirectly, this leads to the development of students' skills especially in thinking creatively and critically.

Theme 2: Game-based learning Kahoot! Interactive Interface

Student 2 : "I can see many shapes and so colourful..."

Student 3 : "Wow, I am so excited to see the car was moving and get the sound too..."

Student 4 : "Not so much I like, but when there is a sound at the car picture, it was so interesting...I knew that is a car..."

Student 7 : "the color is so beautiful and moving..."

Student 10 : Yes, teacher...before this our teacher don't use the Kahoot games, but I like because of the color and many shapes..."

(School A, Class A)

From the observation itself, overall, respondents agree that Kahoot! fun questions put to students are answered with body language enthusiastic. All the respondents were excited to play Kahoot! in learning. In other hands, there is respondents can't wait to learn how to use the Kahoot! game. While, some respondents say the app Kahoot! bring fun to students to learn. From this pilot result, we can conclude that an interesting e-learning based for example Kahoot Games was enjoyable and tested the imaginary of the students. From that, we can see that the e-learning can absolutely motivated the students to think creatively. Based on interview data, game-based learning Kahoot! It was increase students' interest in learning. This pilot study was in line with the study done by (Armadi & Muna, 2021). In the study this, they found that a game-based learning environment can increase interest and student motivation in Malay language literacy. The findings of the analysis of findings show that the design of the environment interesting interactive using a game-based approach can help students have fun while studying. As a result, students' interest and motivation can be increased in the session teaching and learning.

Conclusion

Hopefully this study will be able to help further in refining the practice of Kurikulum Standard Prasekolah (KSPK) that relates to cultivation of creative imagination skills among preschool

children. From the pilot test results also, showed that there is a good indicator to help the researchers in order to gain a knowledge for the development of active e-learning model and application (MYE-MIK).

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