ABSTRACT- With the implementation of Kurikulum Standard Prasekolah Kebangsaan (KSPK), the national preschool curriculum innovation 2009 was another effort taken to face the challenges of quality education in Malaysia specifically to develop the creativity domain among children. According to Standard Domain Kreativiti (SDK, KSPK), intensive experiences in arts are the basic educational instrument that promote creative thinking and aesthetic value. This matches Edwards’ (2006) points of view where he named it as ‘The Creative Arts’. In realizing the implementation of Creative Arts Activities (CAA) in teaching and learning, the researchers develop a suitable practical principle in running visual art activities. These practices are in line with the development and constructivism learning theory which was propounded by Piaget and Vygotsky (Gardner, 1983). It consists of five stages for development of creativity domain. It starts from sensitivity followed by fluency, flexibility, elaboration and originality. The creative arts activities in drawing were developed as sample CAA based on this five stages. Action research that was carried out collaboratively with the preschool teachers in classroom under real context enables the researcher to recognise the practices and acts of teachers that are suitable for promoting creative thinking. These sample activities were also recognised as activities that provide learning experience towards creative and innovative thinking. Besides that, researcher uses simple pre and post-test to identify the weakness and strength of the developed samples in carrying out the visual art activities. The finding has shown a significant difference in the assessment of the visual expression by the pre-schoolers. The magnitude of success differs among individuals. The developed practical principle was named SFFEO and it is recommended to be used as references and guidelines for educators to provide chances to develop creativity domain. This is in line with preparing more creative and aesthetic children for the current and future need of the country.

1.0 INTRODUCTION

Since the formulation of National Education Philosophy (NEP) in 1987 (Tajul 1993), educational curriculum placed great emphasis in developing individuals who are physically, emotionally, spiritually and intellectually balanced in an integrated manner. The overall development of intellect aspect encompasses creative and critical thinking (Bahagian Pembangunan Kurikulum, 2001). However, the manifestation of the government’s concern towards the formulation of NEP in ensuring holistic development of potential which is the main aim of education, failed due to unsuccessful implementation in the education system (Tajul 1993). The recent curriculum innovation with the introduction of National Preschool Standard Curriculum (NPSC) in 2009 and Standard Curriculum for Primary School (KSSR) in 2010 is hoped to highlight the challenges of education quality in Malaysia, enveloping the development of creative, critical and innovative thinking among children.

2.0 PROBLEM STATEMENT

The value of image and design production in children’s works support the development of children’s early education (Lowenfeld & Brittain 1975; Garritson 1979; Edwards 2006; Craft 2000). Thus,
children’s creative behaviour in producing art work should be developed further for optimum learning, especially in their creative thinking. This aspect focuses on creative thinking skills and is included in the teaching and learning of preschool education explicitly. This skill is hoped to be mastered through planned teaching and learning process by providing learning opportunity towards the development of creative domain in children.

Realising the importance of visual activity in preschool education programme, preliminary study from the year of 2010 until 2011 had carried out many exploration of creative arts activities with a research action design. This research is an extension to the survey by Ling & Hasnah in 2009 that investigate the perception of pre-schoolers’ parents and teachers in the importance of CAA. The findings of the survey showed high demand in CAA by both parents and teachers. Other than that, the survey also identified that the level of understanding among preschool teachers in the implementation of CAA is at a moderate level. Most teachers do not possess confidence in carrying out teaching and learning that cater for learning opportunities in developing children’s creative thinking. The findings are supported with a study by Chua (2008) that indicated problems faced by Form 4 visual arts teachers in effort to develop creative domain in teaching and learning process. Chua (2003) suggested that inculcation of creative domain in students especially during teaching and learning of visual arts education should be emphasised. Therefore, this action research is a collaborative effort with preschool teachers in real classroom context will be a stepping stone to the implementation of CAA in preschool education. Even though pre and post-tests with worksheet samples were carried out, the main focus of the research is to identify the strengths and weaknesses of designed visual arts activities sample for the development of children’s creative thinking.

3.0 RESEARCH OBJECTIVE

There are two general objectives:

1. To identify the strengths and weaknesses of visual arts activity that are designed specifically for implementation of CAA in preschool education.

2. To identify the effectiveness of the use of visual arts activity sample in developing creative and critical thinking in children.

4.0 RESEARCH QUESTION

There are two research questions:

1. What are the strengths and weaknesses of the visual arts activities sample that are designed specifically for implementation of CAA in preschool education?

2. Are there any improvement of creative and critical thinking in children through pre and post-tests carried out using visual arts activities?

5.0 DEVELOPMENT OF CREATIVE ARTS ACTIVITY SAMPLE (CAA)

According to Lowenfeld & Brittain (1975), each individual has creative potential since birth. What differs in every individual is the degree of the creativity. If the creative potential is not activated or improved, it may “disappear” gradually or vanish. In order to activate the creative domain, it should be nurtured since
children’s early stage of development. As stated in National Preschool Standard Curriculum, creative domain development is enhanced through music and visual arts. This is in accordance with Edwards (2006) view that recommends visual arts, music and creative movement to cultivate children’s creative domain. This activity is named Creative Arts Activity (CAA).

The implementation of CAA is a process of idea production, not just focusing on products (Edwards, 2006). To materialise such process-oriented teaching and learning, a series of worksheets for drawing activity is designed by researchers. These worksheets comprise of two sheets of paper containing various drawing activities arranged in stages of creative thinking learning and development suggested by Bandura (1997), Lowenfeld & Brittain (1974) and Craft (2005). The creative thinking developmental stages are adapted to suit the designed drawing worksheets. Pupils complete the CAA activity one stage at a time. The stages start with sensitivity, followed by fluency, flexibility, elaboration and originality. The creative thinking developmental stages (except for sensitivity stage) are also the criteria and indicators of creative thinking assessment in the Ministry of Education Standard document (2010). By combining all four criteria and indicators of creative thinking assessments with sensitivity stage of the sensory observations as suggested by Bandura (1997), the drawing worksheets are designed specifically for Creative Arts Activity (CAA) sample in this action research. The following are figures displaying drawing activity carried out by the children during class action.

Figure 1 Drawing Worksheets in Stage 1 – Sensitivity
As presented in Figure 1, the activity used to promote senses’ sensitivity of arts in the visual arts field is sight. Therefore, researchers have planned activities to cater for learning experience that promotes wide use of sense of sight. All four drawing worksheets are designed to improve children’s observation level in comparing and contrasting, identifying shape and looking for symmetrical comparison. Such activities were hoped to train children’s observation skills during teaching and learning process.

Apart from the activities in sensitivity stage, drawing activities for fluency stage are also designed to provide opportunities towards idea presentation or existing knowledge. Figure 2 presents worksheets that require children to present many ideas continuously. The diverse idea presentation is closely related to the existing knowledge and experience in children.

Figure 2 Drawing Worksheets in Stage 2 – Fluency

For sketching and completing pictures, children are provided the opportunities to present many ideas continuously based on their prior knowledge. The ideas presented may or may not be accurate but they should be logical. Next, Figure 3 presents visual arts activity for flexibility stage.

Figure 3 Drawing Worksheets in Stage 3 – Flexibility
Drawing cow’s skin patterns and designing the door of a witch’s house activities as presented in Figure 3 allow children to exhibit rejected, improved or amended ideas from the original pattern. This is an innovative process whereby children start to shift their old ideas after using their imagination. Figure 4 presents activities that require children to use their imagination to solve problems in tasks given.

Figure 4 Drawing Worksheets in Stage 4 – Elaboration

The fifth concept is usually the peak in the creative development process. This is because creative products that contain high level of originality used comprehensively during assessment. Figure 5 requires children to be inventive to present new, unique and valuable ideas. Worksheets in the originality stage are used during pre and post-tests in this action research.

Figure 5 Drawing Worksheets in Stage 5 – Originality
Other than creative thinking developmental stages, learning theories that are propounded by Piaget and Vygotsky (Gardner, 1983) are the building blocks of the designation of drawing worksheets. The ability level of pre-school children with their existing knowledge is taken into consideration while constructing suitable worksheets. Figure 6 presents a summary of suitable drawing activities according to the creative thinking stages.

Figure 6 Summary of activities in drawing worksheets

<table>
<thead>
<tr>
<th>Stage</th>
<th>SUMMARY OF ACTIVITIES IN DRAWING WORKSHEETS (FOR CREATIVE THINKING DEVELOPMENT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>-display sensitivity in existing similarities and differences</td>
</tr>
<tr>
<td>Fluency</td>
<td>-fluent idea presentation based on the various existing knowledge through learning experiences</td>
</tr>
<tr>
<td>Flexibility</td>
<td>-deducting, adding and modifying existing knowledge</td>
</tr>
<tr>
<td>Elaboration</td>
<td>-organisation of clear and ordered ideas for easier understanding</td>
</tr>
<tr>
<td>Originality</td>
<td>-presenting new, unique, valuable and original ideas</td>
</tr>
</tbody>
</table>

6.0 RESEARCH PROCEDURE & METHODOLOGY

A pre-school class in Miri, Sarawak is selected to carry out class action in the form of an action research. The pre-school teachers are “willing partners” that were appointed as the enforcer of CAA to work collaboratively with researchers for an entire semester. In order to identify the practice of suitable CAA implementation in real classroom context, the amount of pupils that were involved is not determined by researchers. A total of 13 pupils participated in the action research where their ideas and opinions are taken into account for the end result. The research procedures are divided into two stages and are illustrated in Diagram 1. For Stage 1, researchers took 2 months to design appropriate visual arts activities for CAA implementation. After elaborated discussions with pre-school teachers, researchers had constructed a series of drawing activities following each stage to ensure children’s creative thinking development. The sample of CAA consists of 12 worksheets. Experts’ confirmation on the worksheets and creative thinking development assessment rubric is obtained before the action research takes place. Upon confirmation from the group of experts, researchers appointed and implemented collaborative action research with pre-school teachers. There are 6 cycles of class action. During the implementation, pre and post-tests are carried out using the drawing worksheets at originality stage. These tests are not intended to make generalisation on the effectiveness of the designed worksheets. The tests, not involving any control group, mainly focus in identifying strengths and weaknesses of the designed worksheet for creative thinking development. Apart from the findings of T-test, interviews and observation data are also collected to validate findings of the research.
Creativity is an innate quality in every individual (KSPK 2009). It is a part of cognitive development (KPM, 2001). Creativity can be defined through product, process, skills, individuals’ characteristics and situational environment (Schirrmacher 1993). According to Isbell R.T & Raines S. C. (2003), educators tend to assume creativity is free from constraint, convention and directed tasks from administrators/texts/curriculum. Charlesworth (1992) defined creativity as a behavioural aspect that displays originality, experimentation, imagination and exploration. According to Edwards (2006), teaching and learning of creative domain development should be process-oriented, not product-oriented. This means idea production process via imagination and exploration needs to be emphasised.

The assessment of creative domain is said to be difficult (Lowenfeld & Brittain, 1974) because process-oriented assessment are in the “invincible” stage where there is no clear-cut products. Preschool teachers are lacking of confidence to assess the standard creative thinking development (Ling

**Diagram 1 Research Procedure & Methodology**

**7.0 CREATIVE THINKING ASSESSMENT INCAA IMPLEMENTATION**
&Hasnah, 2009). However, creative thinking development assessment should not be taken lightly in children’s overall development. Therefore, researchers try to design creative domain assessment for creative thinking testing purpose in this action research as presented in Figure 7.

Figure 7Rubric for Creative Thinking Assessment in CAA implementation
(adapted and modified from KPM, 2010)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Creativity Assessment Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Excellent (20 – 14)</td>
</tr>
<tr>
<td>SENSITIVITY</td>
<td>Sensitive towards existing differences in a comprehensive and detailed manner.</td>
</tr>
<tr>
<td>(20%)</td>
<td></td>
</tr>
<tr>
<td>FLUENCY</td>
<td>There are many and continuous ideas presented related to task given, may or may not be accurate but logical.</td>
</tr>
<tr>
<td>(20%)</td>
<td></td>
</tr>
<tr>
<td>FLEXIBILITY</td>
<td>Ideas can be deducted, added and modified.</td>
</tr>
<tr>
<td>(20%)</td>
<td>Successfully put forward various explanations, examples and presentation related to task given.</td>
</tr>
<tr>
<td>ELABORATION</td>
<td>Idea presentation/explanations are well-elaborated and coherent</td>
</tr>
<tr>
<td>(20%)</td>
<td></td>
</tr>
<tr>
<td>ORIGINALITY</td>
<td>Different and unique idea presentation.</td>
</tr>
<tr>
<td>(20%)</td>
<td></td>
</tr>
</tbody>
</table>

8.0 RESEARCH FINDINGS

After a semester of CAA implementation, researchers had identified the strengths and weaknesses of its implementation in real classroom context. Among the many challenges faced are security management, class and time management during class action as well as existing facilities problem. Table 8 presents a summary of strengths and weaknesses of pre-school teachers’ practice in implementing CAA.

Figure 8Strengths and Weaknesses in implementation of CAA

NECIC 2012 Sibu Malaysia
### Strengths

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAA provides activation for quiet pupils as they are given many opportunities in expressing themselves during reflection session.</td>
<td>Difficulty in providing adequate attention to every pupil with different ideas. Intelligence level varies in each pupil.</td>
</tr>
<tr>
<td>Relationship between teacher and pupils is easily bonded through CAA implementation that is fun and exciting during work production.</td>
<td>Requires high level of competency in teachers to carry out visual production in responding to various questions posed by pupils. At times, teachers are not competent in answering the different questions posed and may result in disappointment among pupils.</td>
</tr>
<tr>
<td>Self-confidence in teachers and pupils increases as CAA encourages them to be open minded in receiving various ideas.</td>
<td>Class control becomes unmanageable due to freedom given by teachers during arts productions. There will be some pupils who will misuse the freedom to make noises and display mischievous behaviour.</td>
</tr>
<tr>
<td>CAA stimulates pupils to search for related idea knowledge to build new and creative idea.</td>
<td>Time allocation for each creative arts activity cannot be set to accommodate the heterogeneous classroom.</td>
</tr>
<tr>
<td>CAA trains pupils to predict what’s going to happen next or to guess a particular arts production.</td>
<td>The learning focus towards creative thinking development may diverge to merely an excitement phase perceived by pupils if no positive guidance by teachers.</td>
</tr>
<tr>
<td>Enhance teachers’ professionalism through idea exploration and reflection of pupils’ production process.</td>
<td>Teachers’ roles become more demanding, where a teacher needs to be a role model, manager, facilitator, motivator and initiator.</td>
</tr>
</tbody>
</table>

Apart from qualitative findings through interviews and observation, pre and post-tests are also analysed to identify mean score difference in creative thinking development assessment. T-test analysis is presented in Figure 9.

**Figure 9: Findings Analysis of T-test in CAA implementation**

<table>
<thead>
<tr>
<th>Mean</th>
<th>SP</th>
<th>DK</th>
<th>r</th>
<th>–t value</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before CAA intervention</td>
<td>45.49</td>
<td>8.75</td>
<td>59</td>
<td>0.38</td>
<td>-8.45</td>
</tr>
<tr>
<td>After CAA intervention</td>
<td>55.20</td>
<td>6.95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Significant at level p < 0.05

The analysis of T-test in the implementation of visual arts activities before and after intervention presented in Figure 9 shows that the mean score of pupils’ achievement before the intervention of CAA is 45.49 (SP = 8.75) and mean score after intervention of CAA is 55.20 with sample amount n = 13. The difference of achievement between two mean scores (9.71) is significant whereby the value of –t = -8.45 (DK = 59, p< 0.05). The strength of the relationship between two learning situations, which is before and after implementation is moderate whereby the value of r = 0.38. The result displays significant difference of creative thinking development achievement among students before and after intervention of CAA. In other words, teaching and learning with the implementation of CAA has directly affected the development of creative thinking among pre-schoolers. The result of T-test is not used to make generalisation on the effectiveness of designed drawing worksheet. However, it has provided an implication on the importance of creative arts activity towards developing children’s creative thinking.
9.0 DISCUSSION

Despite drawing activity worksheets used as CAA sample, this does not imply that the implementation of CAA is restricted to only visual arts activity. According to Edwards (2006), creative arts activity comprises of music, creative movement and visual. Hence, teachers who are implementing music and creative movement activities can apply the different stages of creative thinking development in teaching and learning process. All the developmental stages are combined to build a concept named SFFEO. The 5K concept consists of creative thinking developmental stages that start with Sensitivity (S), followed by Fluency (F), Flexibility (F), Elaboration (E) and lastly, Originality (SFFEO). Apart from that, SFFEO is also expanded as criteria and indicators in children’s creative thinking assessment in pre-schools. Implementation of CAA is further enhanced with the 5K concept.

Other than the administerability of SFFEO concept in creative arts activity (CAA), this concept can also be incorporated or integrated in other areas such as communication, science and technology, humanity and spirituality, as well as values and behaviour. To ensure the effectiveness of incorporation, integration and inclusion process, themed approach is recommended to focus on teaching and learning in respective area. Alteration of SFFEO concept may occur according to respective curriculum needs or difference learning outcomes.

In order to achieve the effectiveness of SFFEO concept implementation, teachers’ practice need to examined in the process of nurturing children’s creative domain. This encompasses teachers’ instructional language, ways to motivate children, giving feedbacks and others. Therefore, workshops, courses or demonstration of implementation of SFFEO concept in real classroom can be organised during the review of new curriculum such as NPSC (2009) and KSSR (2010). As stated by Rohaty (2003), it is deemed compulsory for teachers to understand basic curriculum theories comprehensively that are of themes from developmental interactive and constructive so that they are able to recognise the curriculum implementation. This also applies to pre-school teachers where they need to apprehend theories of curriculum development in KSPK based on NEP, constructivism learning theories by Piaget and Vygotsky (Gardner 1983) and SFFEO concept as recommended in the implementation of CAA to ensure the effectiveness of pupils’ creative thinking development in pre-school education. Lastly, teachers’ outlook and initiative in implementing any curriculum or new concept in teaching and learning also bears significant weight in determining the effectiveness of any implementation.

9.0 CONCLUSION

To conclude, the construction of SFFEO concept in CAA implementation is a result of the action research done to provide learning experiences opportunity that are more inclined to process-oriented in developing children’s creative domain. Teachers can integrate SFFEO concept in teaching and learning process to stimulate creativity and aesthetic value as outlined in standard document and NPSC. This is in line with the aspirations of National Education Philosophy and nation by the year of 2020 to produce critical, creative and innovative human capital for the current and future need of the nation.

REFERENCES


