

## **Designing movement activities to develop children's creativity in**

### **Early Childhood Education**

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#### ***Abstract***

This paper describes the introduction of creative movement activity in three Hong Kong kindergartens to promote children's creativity. The purposes of the study were to examine the effectiveness of creative movement activity in promoting children's creativity and teacher's perceptions of the activities. The movement activities were designed based on four aspects: 1) Introduce the theme; 2) acquire and explore of movement skills; 3) creation and expression and; 4) performance and appreciation. The participants were 12 children and three class teachers. Torrance's test of creative thinking including fluency, flexibility, originality and elaboration was employed to measure children's creativity and teacher's perceptions of creative movement activity provided insights into factors that influenced children's creativity. Results showed that children's movement responses became more varied and always gave surprise to the teachers but limited knowledge, skills and experiences of teachers seemed to be a challenge of Hong Kong kindergarten teachers to foster children's

creativity.

Keywords: *Creative movement; Creative development; Early childhood; Hong Kong*

## **Introduction**

In 2006, the Hong Kong Education and Manpower Bureau introduced the new curriculum guide for pre-primary institutions serving children aged from 2 to 6. One of the curriculum goals is: *“to stimulate children’s creative and imaginative power, and encourage children to enjoy participating in creative works.”* (The Curriculum Development Council 2006, p.20). It is quite clear that creativity is increasingly gaining recognition as an important aspect in the early childhood curriculum and developing creativity of children is now a major concern of the curriculum.

Physical activity is identified as one of the primary learning domains of pre-school in Hong Kong. However, daily physical activity usually emphasizes the physical domain alone. Children are taught by demonstration and practice, and this approach has been used in kindergartens for generations. Obviously, this kind of physical activity program cannot achieve the curriculum goals for creative development. If the physical activity program is to play a role in addressing creative development, it is critically important to add creative components into teaching content and to consider a more child-centred approach. This paper describes the introduction of creative movement activity in three Hong Kong kindergartens to

replace much of the structure and drill of traditional physical activity, experiencing how these creative movement activities promote children's creativity.

*Creativity and the movement activity*

Gardner (1993) reported that every child is born with creative potential and the ages between 3 and 5 are the critical years for the development of creativity. Adults are often amazed by the unique ways in which children express their imagination but children usually need a teacher's support to find the means and the confidence to bring out their ideas. How can physical activity be developed to best support children's emerging creativity?

Movement activity can be a powerful tool to promote children's creativity. Many early childhood educators recognize that children are competent to express themselves through movement activity and there are many movement components that can be used to develop creativity. Capel (1986) indicated that movement activities provide children with the opportunity to move and to create. Many research findings also support the view that motor development and creativity are interrelated and that one area of development connects to the other (Cleland & Gallahue, 1993; McBride,

1991).

Pica (2004) characterized movement activity as a success-oriented, child-centred, noncompetitive form of physical activity emphasizing fundamental movements and the discovery of their variation. Therefore, movement activity should not be designed for imitation or the right way to do the skills as this does nothing to promote creativity. Rather, movement should encourage children to experience, to discover and to learn by doing. Lloyd (1998) suggested that movement is a form of self-expression which uses the body movement to express ideas, minds and emotions. Gilbert (1992) also described creative movement as being a joyful way for children to explore movement and to stimulate imagination and promote creativity. Movement activity should allow children to use body actions to communicate an image, an idea or a feeling. Therefore, the activities should be designed to provide opportunity for children to use their own body movement to express and communicate.

Chan (1995) pointed out that creativity involves receiving information, choosing information and the ability to interpret information. Therefore, movement activities should not be designed to emphasize movement skills. Rather, through skill exploration, activities should encourage children to grasp some basic movement skills,

know how to use them, and then provide activities for them to create their own interpretation of an image, an idea or a feeling, thus in turn developing imagination and creativity.

### *Purposes of the study*

Visual art is not the only domain for creativity. A movement activity that emphasizes divergent thinking, imagination and self-expression also makes a substantial contribution to the development of creativity. Pica (2004) suggested that creative movement is an excellent medium for establishing a relationship between mind and body which is critical to unleashing creativity. In Hong Kong, few studies have addressed creative movement in kindergartens. This study was designed to introduce creative teaching strategies into physical activity and to explore how the design of movement activity contributes to the development of creativity in children. A series of movement activities was designed for this study and implemented to promote children's creativity. The principle for the design did not emphasize how to teach skills, but how the teacher could act as a guide in accumulating experience for children, helping the children to use their own body languages and self-expression through imagination and creation. The purposes of the study were to examine firstly

the effectiveness of movement activity in promoting children's creativity in Hong Kong kindergartens and secondly the teacher's perceptions of creative movement activity in order to provide insight into curriculum and instruction.

## **Method**

### *Participants*

The participants were 60 children aged 5-6 and three class teachers in three kindergartens. Four children were randomly selected from each kindergarten for assessing creativity during the movement activity; thus twelve children provided focus for this small scale study.

### *Procedures*

The design of each movement activity involved four key aspects that provided children with exploration, imagination and creative thinking. The four key aspects were:

1. *Introduce the theme of the activities.* This aspect engages children in making

connections with previous learning and eliciting their prior experience. Teacher introduces the theme of the activity and asks the children to express what they know about the theme by their body movement. The beginning activities that are relevant to the child's prior experiences provide opportunities to integrate the movement activity with the rest of the curriculum and assist children in seeing things from different perspectives. According to Piaget (1963), learning occurs when new information is attached to prior knowledge. Koestler (1990) suggested, creativity is rooted in making connections and creative ideas are generated through connections.

2. *Acquire and explore movement skills.* Pica (2004) suggested that movement activity is concerned with expressive movement and it is important to give children practice and instruction necessary to refine their movement skills and expand their movement vocabularies. This aspect engages children in exploring movement skills relevant to the creative task and, through guided instruction, allows them to grasp some basic movement skills and know how to use them.
3. *Creation and expression.* This aspect engages children to find their own way of responding to the teacher's challenges. Doyle (1998) stressed that creativity is a way of using mind and body to engage in a task. During the process, ideas, feelings, skills and knowledge work together in innovative ways. Providing a task



for creation and expression allows the children to think, to imagine, to create and to act, thus in turn to foster creativity.

4. *Performance and appreciation.* This aspect engages children to perform their movement sequence for appreciation. It provides opportunity for children to share their ideas and to enjoy the fun of creating. Pica (2004) stressed that when children's own thinking is praised and validated by others, their confidence grows and they are willing to take greater creative challenges. Therefore, providing opportunity for children to experience success is crucial.

Table 1 shows the teaching contents of the three movement activities.

**Table I: Teaching contents of the three movement activities**

	Aspect 1	Aspect 2	Aspect 3	Aspect 4:
School/ Themes	Introduce the theme of the activities	Acquire and explore movement skills	Creation and expression	Performance and appreciation
School 1/ Swimming	Use movement to share different forms of swimming strokes.	Different ways to perform the leg and arm actions of butterfly stroke.	Create swimming strokes of selected animals.	Perform the stroke created by the group.
School 2/ Water	Make different shapes to show big and small water droplets.	Different ways to show the water droplets vaporized and the shapes of cloud.	Create a sequence in group: water droplets → vaporization → cloud shape.	Perform the movement sequence created by the group.
School 3/ My body	Use different body parts to show beautiful	Move freely, make different postures and	Create a group sculpture by connecting to each	Perform the group sculpture

postures.	freeze.	other with different parts of the body and move in different ways.	and moving pattern created by the group.
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The movement activities were taught by three class teachers who had participated in the demonstration classes and a briefing session conducted by the researcher. Each activity lasted about 30-40 minutes and all classes were videotaped and reviewed by the researcher to measure the creativity level of the focus children. Torrance's test (1992) of creative thinking was modified and employed and four key elements of creative thinking were measured: (1) *fluency* was calculated by numbers of ideas produced; (2) *flexibility* was calculated by the variety of ideas produced; (3) *originality* was calculated by the number of new, unusual innovative ideas produced and (4) *elaboration* was calculated by the ability to fill in details. All measures were scored on a 3-point rating scale, from 1 (low) to 3 (high).

Semi-structured interviews with the class teachers were conducted after the implementation of the movement activities. Prompting questions were formulated to explore teachers' perceptions of children's creativity. Examples of the questions include: 'How do you find the activities encourage creative thinking?'; 'What kinds of idea do the children exhibit in the activities?' All questions were open-ended to

provide opportunities for probing of responses and follow-up questions.

## Results and Discussions

### *Children's creativity*

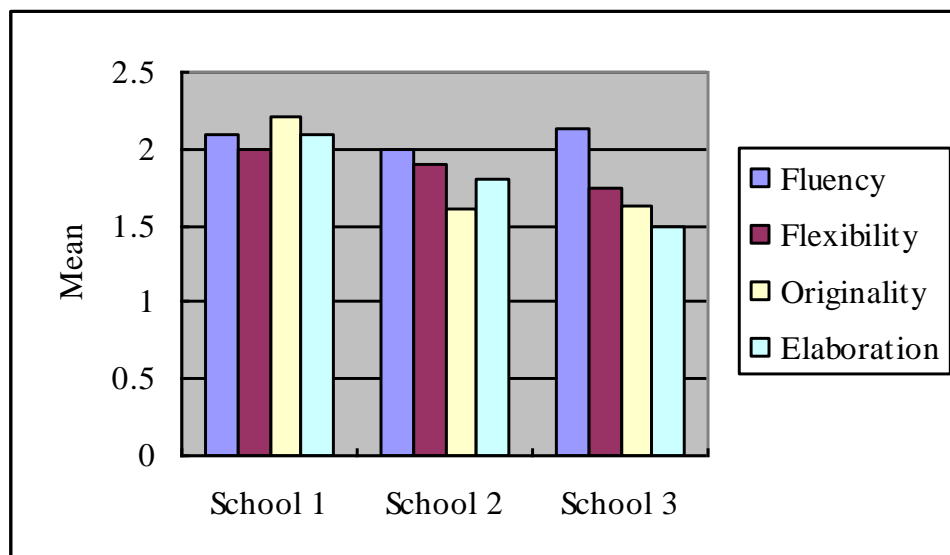
Descriptive analysis was employed to analyze children's creativity. Four aspects of children's creative thinking were scored and analyzed. Means and standard deviations for fluency, flexibility, originality and elaboration are reported in Table 2. The overall mean score was 1.9 which indicated that children showed a medium level of creative thinking. Examination of the means revealed that fluency received the highest mean score, followed by flexibility, originality and elaboration.

**Table II: Means and standard deviations for children's creative thinking**

Variable	Mean	SD
Fluency	2.07	0.62
Flexibility	1.89	0.59
Originality	1.82	0.70
Elaboration	1.82	0.67
Overall	1.9	0.65

With regard to differences in children’s creative thinking in the three kindergartens, Figure 1 shows that children in school 1 exhibited a higher level than the others in all key elements of creative thinking. It might be due to the theme ‘swimming’ involved children’s personal experience and feelings while children might have limited knowledge in water droplets and sculpture. Therefore, it was easier for them to make connections and to find different ways to move. This finding supports Jalongo & Stamp (1997) ideas that children began creative process with experiences in their surroundings. Moran et al. (1985) also stressed that knowledge and skills were a prerequisite for creativity and activities that are relevant to the child's life experiences support creative thinking.

**Figure 1: Children’s creativity in three Hong Kong kindergartens**



Even though the focus children did not performed at a high level of creative

thinking, most children were observed to show some degree of creative thinking. This suggests that the design of the activities activated children's creativity. However, as the children had limited experience in creative movement as well as limited knowledge of the themes, they might not have felt confident to move in their own ways. It was suggested one of the first things that a kindergarten could do for developing children's creativity is to implement the creative movement activities regularly in order to provide opportunities for the children to manifest their creative abilities. Once children's creative experiences are enriched, they can feel comfortable with their bodies and with the self-confidence to express themselves through movement.

#### *Teacher's perceptions of creative movement activity*

The qualitative findings provided additional insights into aspects of children's creativity as well as the factors that influenced children's creativity. After being tape recorded, the interviews were transcribed and analyzed. By using data-driven categorization with the identified areas as units of analysis, the researcher arranged the data into four aspects: (a) fluency (b) flexibility (c) originality and (d) elaboration. The statements were reviewed and compared to capture more information about the

creative performance of the focus children and the design of the activity.

*Fluency.* The teachers agreed that fluency was exhibited in the variety of children's actions and movement.

Children have different actions during the second and third attempts.

(School 1)

At the beginning of the activity, many children imitated others' movement. After they imitated different movement, they started to have their own movement to answer teacher's question. (School 2)

At the beginning, they imitated the postures from the pictures and gradually they could produce changes as the teacher requests.

(School 3)

This reflects Wang's (1993) assumption that creative thinking is "from something to something" but not "from nothing to something." In the activities, children learned from imitation. Children could produce more original ideas when

they had imitated observed movement skills. Barron (1988) points out that creativity has to be inspired from knowledge or skills. If the children do not have any of the basic movement ideas, creative thinking is hard to develop.

*Flexibility.* The class teachers observed that children were able to use past experience in new situations, as shown by the following excerpts.

Children already knew some animal actions, so they could use it for creative activity and create their own movement for swimming, such as: dolphin, horse, crab, fish, whale etc. (School 1)

Children observed different pictures of the clouds and connected them into their movements such as duck, popcorn, rocket shapes of clouds. (School 2)

Children used their dance experience such as ballet, jazz, adding their own ideas to create a set of new movements. (School 3)

The children encountered different changes and demands from the teacher.

However, the level of children's flexibility was different with the number of creative elements. If the creative challenges consisted of one element only, such as large or small movement elements, children performed more new ideas; if it consisted of more than one element, children found it hard to respond to the teacher's challenge. This suggested that at the beginning of the creative movement program, the teacher should keep the tasks simple. In addition, providing various stimulations such as videos, pictures, photos and verbal descriptions might help children to imagine and to create.

*Originality.* It was during the "creation and expression" activity that the children were best at exhibiting their originality. Most of the children were willing to be different and unique.

Most of the children were able to create their own actions, such as a sea horse which keeps spinning on the ground. (School 1)

Children had rich imagination especially showed in "cloud's shape" activity. Children's creativity is so unexpected and they had their own style in different groups when they performed. (School 2)



Gender can influence the style of the creative movement. For example, girls liked to create “elegant” movement, but boys liked to create “energetic” actions. (School 3)

According to Mayesky (2006), a critical element of creative potential is originality. Therefore, teachers should provide an open, free atmosphere that leads to original thinking. It was found that all children were creative in some degree when teachers let children freely follow their own thinking and perform their own movement.

*Elaboration.* Elaboration is the child’s ability to extend the content. The teachers appreciated that children could create movement with their own thinking and thereby enrich the content. The key element was to bring out the children’s past experience.

Children were able to extend the content and develop creative thinking.

For example, when children acted as whale swimming, they performed different actions included pushing water, turn. (School 1)

Children could give additional meaning to the cloud shapes they act, such

as: flower-like cloud, crab-like cloud. (School 2)

Teachers found that children usually make connections and extend the content more easily if the creative movement activity matched with children's past experience. This finding reinforces the quantitative data and suggests that teachers should start the activity relating to the children's own experience and provide prompts to help children making connection to previous learning and knowledge.

#### *Teacher's perception of creative movement activity*

The teachers agreed that creative movement activity provided various opportunities for children to think, to create and to express. Many positive elements of the movement activities were highlighted. These included:

1. Children enjoyed taking part in movement activity which was described as fun, enjoyable and exciting.
2. Children started to have more confidence to answer teachers' questions and to give new and different ideas.
3. Teachers appeared more aware of the need to use different strategies for stimulating creativity in physical activities.

It gave me inspiration to reflect that physical activity is not only limited on physical skills. Children learn to cooperate and appreciate. For me, I learn the skills of asking question, leading children to create and respecting them. (School 1)

I thought I talked too much for explaining the tasks. In general, children were able to think differently and perform certain level of creativity. (School 2)

The teachers also identified that it was important to provide more guidance and support for planning and implementing this approach as most kindergarten teachers had limited experience in teaching creative movement activity.

Because of my lack of movement vocabulary, it was sometimes difficult to describe the beauty of some special movements verbally. It could make the children to think more if there was more vocabulary. (School 3)

It appeared that creative movement activity alone was insufficient for promoting

children's creativity. Something more than creative opportunities were necessary and that was the creative abilities of the teachers. A creative activity that fostered children's creativity depended on teachers being creative to provide the ethos for enabling creativity (Craft & Jeffrey 2004). As observed by the researcher, the three teachers involved in this study might not encourage children to think creatively as they showed more concern on movements that they expected. This is because Hong Kong kindergartens teachers have not experienced learning and teaching from this perspective. The need to support teachers in developing appropriate practice to foster creativity is highlighted.

## **Conclusion**

The results of this study suggest that creative movement activities developed in this study could be one of the effective ways to promote creativity in kindergarten as most of the children possessed a certain amount of creativity during the activities with some children were more creative than others. From the children's first time in participating in creative movement activity, the teachers have observed an increase in their creative motivation and keenness to get involved in the activities. They also found that the activities provide many opportunities for creative thinking which made

the children feel interested and challenged. Children's movement responses became more varied and always gave surprise to the teachers.

Although the program exhibited a positive impact on the development of children's creativity, limited knowledge, skills and experiences of teachers seemed to be a challenge of Hong Kong kindergarten teachers to foster children's creativity. It is hoped that this study will stimulate kindergarten teachers' interest in teaching creative movement activity. The framework developed in this study could serve as a guide for teachers to invent their ways of teaching. Teachers should keep in mind that they are in a crucial position to foster children's creativity in terms of modeling, demonstrating, interacting, scaffolding and supporting. The focus of the activity should not reflect the teacher's predetermined ideas but should rather support children's outcomes and learning in creative movement. The results of this study could have implications in two areas. Firstly, the creative movement program should be implemented regularly throughout the academic year rather than in a shorter period of time in order to allow the teachers to be familiar with creative teaching and to gain insights about designing and implementing instructional strategies that facilitate children's creativity. Teachers have to remind themselves to pay attention to the process as well as the product of children's activity. A process-based teaching approach emphasizes acceptance of

every single creation children make, giving them encouragement and appreciation, in order to let them experience the enjoyment of creation and inspire them to have greater interest in creation. Also, the teacher should focus on product-based teaching approach to emphasize creative thinking such as originality, open-ended questions and providing challenges to encourage children to express their ideas in their own creative ways. Secondly, when presenting new ideas or activities, teachers should not move too fast and need to provide an adequate knowledge base and skills for children. The activity should start from simple to complex and provide an environment that encourages children to make connections with previous learning and knowledge. One teaching strategy is that when a child move beyond imitation, the teacher may pick up on that idea and to have the class try it out with constructive comments about the creative aspects of the idea. In that way, teachers should let children know their creative ideas are valued and develop a willingness to express creativity in many ways.

The findings from this study form a starting point for in-depth discussion and exploration of the development of children's creativity in Hong Kong kindergartens and lead to further inquiry about the design and teaching strategies of creative movement activity.

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