

**Research Article**

## **A Set of Movement Therapy Activities Developed for the Enhancement of Performing Arts Skills of Down Syndrome Children in Tertiary Education**

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### **Abstract**

The purpose of this research was to develop a set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education. The population used in the research was purposive sampling, consisting of 2 students with Down Syndrome at Bachelor of Arts Program in Performing Arts, Chiang Mai Rajabhat University. The tools in this research consisted of 2 parts: 1) A set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education, 2) Performing arts skills assessment form for children with Down syndrome in tertiary education. The tools were developed by studying the documentation and research related to Down Syndrome, learning theory, performing arts skills, movement therapy, and passed the quality inspection by using the IOC index of conformity by 3 experts. The results of the research found that 1) a set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education, consisting of 8 activity plans which having an index of conformity (IOC) between 0.70 and 1.00 2) The 12-item performing arts skills assessment form for children with Down Syndrome in tertiary education has an index of conformity (IOC) between 0.70 and 1.00, so this tool was reliable enough to be used as a enhancing tool which be able to build performing arts skills for children with Down Syndrome in tertiary education.

**Keywords:** Activity Development, Performing Arts Skills, Down Syndrome Children

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## **Introduction**

Education is very important for developing quality people, it is a tool for developing human resource to enhance a learning society, develop quality people and can also determine the direction of the country. If any country has the promotion of education in the right direction as well as planning efficient human resource development, it will give the country a cost that is a potential human resource (Duangduean, 2009).

Down Syndrome is a disease caused by a genetic abnormality that is congenital. It is a syndrome caused by chromosomal abnormalities. As a result, the children have delayed development in various areas than normal children of the same age and having limitations at the level of their own potential, including adaptation to the environment and society thus making it difficult to live their life (Office of the Basic Education Commission, 1992). That is one of the major problems that should be realized and paid attention. Children with Down Syndrome have a greater need for emotional, social, mental, and physical development in their motor skills. Especially the use of large muscles because it is related to the ability to control the body movements because of Down Syndrome children, their large muscles are not strong, soft and the joints can be stretched a lot, causing problems in the development of the movements of various organs of the body, making learning or daily life activities are difficult for them.

Movement therapy is one of a science of arts which is integrated with the principles of therapy. In medical practice, movement therapy has been used to help treating and has been successful in many matters, such as developing a positive manner, developing social skills of children with ADHD, chronic illness, developing a sense of self-esteem, enhancing a communication skill, therefore, it is one of the methods that can solve the social, emotional, thoughtful and physical problem (Pravit, 2015). The Performing Arts course is an action-oriented course. The students must have skills in many areas including concentration, self-control, control the movement and direction which connected to each organ to be able to move and shift in relation to each other, etc.

The researcher was interested in bringing movement therapy to help students at Bachelor of Arts Program in Performing Arts, Chiang Mai Rajabhat University which is a group of children with Down Syndrome for gaining better performing arts skills by applying the principles of movement that are related to emotion with music to enhance their performing arts skills in the areas of meditation and self-control of Down Syndrome students which have been changing into a better direction and be able to develop their skills in performing arts and proceeding more effectively. For that reason, obtaining the A Set of Movement Therapy Activities to strengthen performing arts skills of children with Down Syndrome in tertiary education, the tools must be developed correctly and appropriately.

## **Purpose**

To develop a set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education.

## **Methods of conducting research**

This research has steps to develop a set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education as follows:

1. Creating tools to enhance performing arts skills of Down syndrome children in tertiary education by collecting from the related document and research, the details are as follows.

1.1 movement therapy activities enhance performing arts skills of Down syndrome children in tertiary education have studied from the documents related to the learning activities for children with Down Syndrome, learning theory, principles of the performing arts movements and a pattern of movement therapy for children with special needs.

1.2 Performing arts skills assessment form for children with Down Syndrome have studied from various documents and research which are related to children with special needs, various assessment forms which are related to children with special needs, and a pattern for assessing learning in performing arts.

2. Inspecting the quality of tools to enhance performing arts skills of children with Down Syndrome in tertiary education, and its target audience is children with special needs specialist. Choosing 3 experts of performing arts by purposive sampling as follows:

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2.1 Assistant Professor Dr. Sasiphin Sukboonphan

2.2 Dr. Pitisan Mukdasakulphiban

2.3 Dr.Sariya Hongyeesibed

### Tools Development Method

The research tools consisted of 1) A set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education 2) The performing arts skills assessment form for Down Syndrome children.

The process of creating tools to enhance performing arts skills of children with Down Syndrome in tertiary education is divided into 2 steps as follows:

Step 1: Creating tools to enhance performing arts skills for children with Down Syndrome in tertiary education

For the set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education, the researcher has studied documents which are related to learning activities for children with Down Syndrome, the learning theory, the suitable period to organize learning activities for children with special needs.

Study the Development of a learning plan in order to obtain a suitable pattern of learning plan. In addition, the composition of the performing arts skills and the pattern of movement therapy which is appropriated for Down Syndrome children were synthesized and being used to develop a A Set of Movement Therapy Activities to develop performing arts skills which are suitable for children with Down Syndrome according to the given structure. A total of 8 activities has a duration of 60 minutes per activity. Each activity will be repeated twice a week, divided into 3 periods consisted of 10 minutes of preparation, 40 minutes of therapy and 10 minutes of summary as in Table 1

**Table 1:** A Set of Movement Therapy Activities Developed for the Enhancement of Performing Arts Skills of Down Syndrome Children in Tertiary Education

Activity No.	Activity Name	Goal	Conceptual Theory
1	Balance Game I	To learn how to control their body, concentration, and body movement by keeping balancing on the given line. Practice using their body according to the instructions through the dance terms.	- Thorndike's Theory of Learning - Movement Therapy - Principle of Movement in Body Movement Area
2	Balance Game II	To learn how to control their body, concentration, and body movement by keeping balancing on the given line. Practice using their body according to the instructions through the dance postures.	- Thorndike's Theory of Learning - Movement Therapy - Principle of Movement in Body Movement Area
3	Your Space I	To learn how to control their body, concentration, spatial mobility through the body movement in a role-playing manner in different directions.	-Thorndike's Theory of Learning -Movement Therapy -Principle of Movement in Spatial Mobility Area
4	Your Space II	To learn how to control their body, concentration, spatial mobility through the pattern body movement in different directions by setting the movement area in the 9 grids.	-Thorndike's Theory of Learning -Movement Therapy -Principle of Movement in Spatial Mobility Area
5	Time to Move I	To learn how to control their body, concentration, timing movement through	-Thorndike's Theory of Learning -Movement Therapy

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Activity No.	Activity Name	Goal	Conceptual Theory
		the body movement in the style of western dance consisted of rapid, sudden, hold or continuously manner at a specified rhythm and duration.	-Principle of Movement in Timing Movement Area
6	Time to Move II	To learn how to control their body, concentration, timing movement through the body movement in a rapid, sudden, hold or continuously manner at a specified rhythm and duration.	-Thorndike's Theory of Learning -Movement Therapy -Principle of Movement in Timing Movement Area
7	Your Movement Your style I	To learn how to control their body, concentration, styled movement through the movement of the body's organs that are slow, soft or fast which related to the given space and time.	-Thorndike's Theory of Learning -Movement Therapy -Principle of Movement in Styled Movement Area
8	Your Movement Your style II	To learn how to control their body, concentration, styled movement through the movement of the body's organs which related to space, pattern, time by combining activities that have been done before.	-Thorndike's Theory of Learning -Movement Therapy -Principle of Movement in Styled Movement Area

The performing arts skills assessment form for children with Down Syndrome, the researcher has studied documents, textbooks and research related to children with Down Syndrome and performing arts skills, in order to understand the structure of performing arts skills which suitable for children with Down Syndrome. Study the various documents related to the performing arts skills assessment for children with special needs to obtain an appropriate pattern of performing arts skills assessment form consisted of the following performing arts skills: 1) Body movement control skill in body control area 2) Body movement control skill in spatial mobility area 3) Body movement control skill in timing movement area 4) Body movement control skill in styled movement area. Creating 12-item assessment which is a 5-level rating scale, and each level contains a different score. Although, 1 means being unable to move the body as specified, 2 means being able to move the body as specified slightly, 3 means being able to move the body as specified moderately, 4 means being able to move the body as specified a lot, 5 means being able to move the body as specified at all.

Step 2: Inspecting the quality of tools to enhance performing arts skills of children with Down Syndrome in tertiary education.

1. The set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education.

1.1 Presenting the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education that was developed to three experts to determine the IOC, and to select activities with the Index of Conformity equal to or greater than 0.5 (Booncherd, 2014) and make improvements according to the feedback from the experts.

1.2 Tools trial to study the suitability of taking the set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education. The revised edition consisted of 1 activity to experiment with the sample group as follows: 1 Student with Down Syndrome in Performing Arts course at Chiang Mai Rajabhat University and 1 parent of a Down Syndrome student to determine the appropriateness of the procedure, activity, duration of activity as well as equipment that being used for activity.

1.3 Analyzing the data to study the content accuracy by using the IOC, Index of Conformity.

2. The performing arts skills assessment form for children with Down Syndrome

2.1 Presenting the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education that was developed to three experts for inspecting around structural accuracy and determine the IOC, and to select activities with the Index of Conformity equal to or greater than 0.5 (Booncherd, 2014, p.90) and make improvements according to the feedback from the experts.

2.2 Tools trial to study the suitability of taking the set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education. Taking the revised edition to experiment with the sample group as follows: 2 Students with Down Syndrome in Performing Arts course at Chiang Mai Rajabhat University and using 2 observers simultaneously to determine the quality of the assessment.

2.3 Analyzing the data to study the content accuracy by using the IOC, Index of Conformity.

### **Data Analyzation**

**Step 1 :** Creating tools to enhance performing arts skills of children with Down Syndrome in tertiary education

1. The set of movement therapy activities developed for the enhancement of performing arts skills for of children with Down Syndrome in tertiary education, consisting of 8 activities  
The structure and form of movement therapy were analyzed and synthesized suitably for learning activities to enhance performing arts skills of children with Down Syndrome in tertiary education.

2. The performing arts skill assessment form for children with Down Syndrome.

The content and composition of performing arts skills were analyzed and synthesized suitably for children with Down Syndrome in tertiary education.

**Step 2 :** Inspecting the quality of tools to strengthen performing arts skills of Down Syndrome children in tertiary education

1. Presenting the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education that was developed to three experts for inspecting around structural accuracy and determine the IOC, and to select activities with the Index of Conformity equal to or greater than 0.5 (Booncherd, 2014, p.90)

2. Presenting the performing arts skills assessment form to three experts for inspecting around structural accuracy and determine the IOC, and to select activities with the Index of Conformity equal to or greater than 0.5 (Booncherd, 2014, p.90)

### **Summary of Research Results**

1. The set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education

1.1 The set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education having the structure of activities which is divided into 4 skills: 1) Body movement control skill in body control area 2) Body movement control skill in spatial mobility area 3) Body movement control skill in timing movement area 4) Body movement control skill in styled movement area. A total of 8 activity plans are: 1) Body movement control skill in body control area consisted of 2 plans: Balance Game I and Balance Game II 2) Body movement control skill in spatial mobility area consisted of 2 plans: Your Space I and Your Space II 3) Body movement control skill in timing movement area consisted of 2 plans: Time to Move I and Time to Move II 4) Body movement control skill in styled movement area consisted of 2 plans: Your Movement Your style I and Your Movement Your style II, it would be 8 activities in total.

Activity Plan 1: Balance Game I

The objective is learning how to control their body, concentration, and body movement by keeping balancing on the given line. Practice using their body according to the instructions through the dance terms.

Activity Plan 2: Balance Game II

The objective is learning how to control their body, concentration, timing movement through the body movement in a rapid, sudden, hold or continuously manner at a specified rhythm and duration, consisting of the gesture in Thai folk dance that is used instead of speaking words such as Chum, Ther, Than, Pa-ti-sed,

Reag, Pai and gesture language in Thai folk dance such as Yuen, Dern and Nung, and gesture in Thai folk dance used to express emotions such as Dee-jai, Sia-jai, Grote, Sao.

**Activity Plan 3: Your Space I**

The objective is learning how to control their body, concentration, spatial mobility through the body movement in a role-playing manner in different directions.

**Activity Plan 4: Your Space II**

The objective is learning how to control their body, concentration, spatial mobility through the pattern body movement in different directions by setting the movement area in the 9 grids.

**Activity Plan 5: Time to Move I**

The objective is learning how to control their body, concentration, timing movement through the body movements in the style of western dance which are rapid, sudden, hold or continuously manner such as Marching Out, Marching In, Easy Walk, Step Touch, Lek Curl, Knee Up, Membo, Grapevine at a specified rhythm and duration.

**Activity Plan 6: Time to Move II**

The objective is learning how to control their body, concentration, timing movement through the body movement in a rapid, sudden, hold or continuously manner at a specified rhythm and duration.

**Activity Plan 7: Your Movement Your style I**

The objective is learning how to control their body, concentration, styled movement through the movement of the body's organs that are slow, soft or fast which related to the given space and time.

**Activity Plan 8: Your Movement Your style II**

The objective is learning how to control their body, concentration, styled movement through the movement of the body's organs which related to space, pattern, time by combining activities that have been done before.

1.2 The Quality of set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education was accurate in term of activity plan. It had an Index of Conformity between 0.70 and 1.00, details are as follows: Activity 1: Balance Game I and Activity 2: Balance Game II had the Index of Conformity at 1.00, Activity 3: Your Space I had the Index of Conformity at 0.70, Activity 4: Your Space II, Activity 5: Time to Move I, Activity 6: Time to Move II, Activity 7: Your Movement Your style I and Activity 8: Your Movement Your style II had the Index of Conformity at 1.00 as in Table 2.

**Table 2:** Experts' Index of Conformity values of the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education

Activity No.	Activity Name	IOC	Conclusion
1	Balance Game I	1.00	Approved
2	Balance Game II	1.00	Approved
3	Your Space I	0.70	Approved
4	Your Space II	1.00	Approved
5	Time to Move I	1.00	Approved
6	Time to Move II	1.00	Approved
7	Your Movement Your style I	1.00	Approved
8	Your Movement Your style II	1.00	Approved

## 2. The performing arts skills assessment form for children with Down Syndrome

2.1 The performing arts skills assessment form for children with Down Syndrome consisted of 4 performing arts skills: 1) Body movement control skill in body control area consisted of 3 sub-skills: body movement in dance terms, body movement in movement language and body movement in western dance. 2) Body movement control skill in spatial mobility area consisted of 3 sub-skills: left-right body movements, front-back movements, and high-low direction movements. 3) Body movement control skill in timing

movement area consisted of 4 sub-skills: slow rhythm movement, fast rhythm movement, rhythmic and stay still movement and continuous rhythm movements. 4) Body movement control skill in styled movement area consisted of 2 sub-skills: body movement according to the given situation and body movement according to the given songs, in total 12 items.

2.2 The quality of the performing arts skills assessment form for children with Down Syndrome had the content accuracy by using the IOC, Index of Conformity between 0.70 and 1.00, details are as follows:

1) Body movement control skill in body control area consisted of 3 sub-skills had the Index of Conformity at 0.70.

2) Body movement control skill in spatial mobility area consisted of 3 sub-skills had the Index of Conformity at 1.00. 3) Body movement control skill in timing movement area consisted of 4 sub-skills had the Index of Conformity at 1.00. 4) Body movement control skill in styled movement area consisted of 2 sub-skills: body movement according to the given situation had the Index of Conformity at 1.00. body movement according to the given songs had the Index of Conformity at 0.70 as in Table 3.

**Table 3:** Experts' Index of Conformity values of the performing arts skills assessment form for children with Down Syndrome separated by skills

Performing Arts Skill	IOC Value	Conclusion
<b>1. Body Movement Control Skill in Body Control Area</b>		
1.1 Participants were able to perform at least 5 movements in dance terms	0.70	Approved
1.2 Participants were able to perform at least 5 movements in movement language.	0.70	Approved
1.3 Participants were able to perform at least 5 movements in western dance.	0.70	Approved
<b>2. Body Movement Control Skill in Spatial Mobility Area</b>		
2.1 Participants were able move their bodies in the left-right direction.	1.00	Approved
2.2 Participants were able move their bodies in the front-back direction.	1.00	Approved
2.3 Participants were able move their bodies in the high-low direction.	1.00	Approved
<b>3. Body Movement Control Skill in Spatial Mobility Area</b>		
3.1 Participants were able to move their bodies in a slow rhythm movement.	1.00	Approved
3.2 Participants were able to move their bodies in a fast rhythm movement.	1.00	Approved
3.3 Participants were able to move their bodies in a rhythmic and stay still movement.	1.00	Approved
3.4 Participants were able to move their bodies in a continuous rhythmic movement.	1.00	Approved
<b>4. Body Movement Control Skill in Styled Movement Area</b>		
4.1 Participants were able to move their bodies in the given situations.	1.00	Approved
4.2 Participants were able to move their bodies in the given songs.	0.70	Approved

## Discussion of Results

1. The set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education

1.1 The structure of a set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education divided into 4 skills as follows: 1) Body movement control skill in body control area 2) Body movement control skill in spatial mobility area 3) Body movement control skill in timing movement area 4) Body movement control skill in styled movement area which is consistent with (Pannapat,2019: 40) said that the essential elements of physical movement include body, space, time and style, it's also in accordance with (Matnee,2012:3) said that in all kind performing, the fundamental key is "moving principle", where performers with a good movement background will also create and design performances well. A set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children in tertiary education consisted of 8 activity plans. Each plan consisted of the objectives of the activities, activity organizing process and theoretical

concepts that used in organizing activities which the pattern of movement therapy developed by the researcher were designed based on the movement principles of therapeutic dance movement of Thai dance, western dance and performing arts to apply as a major principle to design the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education was consistent with the research by Rawiwan Wanwichai, it was found that children with Down Syndrome with ADHD exhibited inappropriate behavior was statistically significantly lower than before using dramatic arts therapy at the .05 level, Rawiwan Wanwichai (2018: Abstract), and was also consistent with Pinthorn Prayanusorn who said dance therapy would be effective treatment which is successful in many matters, such as developing a positive manner, developing feelings, stress, anxiety and depression reduction, isolation reduction, improving communication skill. (Pinthorn, 2005, p. 2) The duration of the activity was 2 times a week, 60 minutes each time, in total 16 times. Each activity was divided into 3 periods: 10 minutes of preparatory, 40 minutes of therapy, 10 minutes of summary, and integrating the study of concepts and theories related to learning which is suitable for children with Down Syndrome, consisting Thorndike's Theory of Learning and was also consistent with Erna Gronlund, Barbro Renck and Jenny Webull (quoted in Rawiwan, 2018: 154) said therapeutical activities in short term manner should be continued for at least 10 weeks in order to have an effect on behavioral adjustments.

1.2 The quality of the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education had an Index of Conformity (IOC) between 0.70 and 1.00, which corresponds to (Booncherd, 2004, p.179) said Index of Conformity must be greater than or equal to 0.50, indicating that the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education was developed with quality and suitable for use.

## 2. The performing arts skills assessment form for children with Down Syndrome

2.1 The performing arts skills assessment form for children with Down Syndrome is a 5-level rating scale. The assessment items assess all four performing arts skills of children with Down, which corresponds to (Pannaphat, 2019, P.40) said There are four key components of body movement: body, space, time and style. The assessment consisted of 12-item which is a question-based assessment of practical skills covering performing arts skills which is suitable for children with Down Syndrome.

2.2 The quality of the performing arts skills assessment form for children with Down Syndrome had an Index of Conformity (IOC) between 0.70 and 1.00, which corresponds to (Booncherd, 2004, p.179) said Index of Conformity must be greater than or equal to 0.50, indicating that the developed performing arts skills assessment form for children with Down Syndrome had a quality assessment and suitable for use.

## Research Feedback

1. For the research work on children with special needs, the researcher must study the information of the sample in the research well, parents and experts of the children with special needs should be consulted.

2. In using the set of movement therapy activities developed for the enhancement of performing arts skills of children with Down Syndrome in tertiary education, an organizer must understand the pattern of movement therapy in order to gain an accuracy and maximum benefit in the development of performing arts skills.

3. In the deployment of the performing arts skills assessment form for children with Down Syndrome, the meeting with the assessor is required in order to understand how to assess, and the assessment criteria must be clearly understood for an accurate assessment.

4. This research will help develop a set of movement therapy activities developed for the enhancement of performing arts skills of Down Syndrome children. Therefore, in the further research, the researcher may apply the dance therapy to enhance the reading abilities of children with special needs.

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