

The Creation of Ceng-Ceng Krinceng Dance as Therapy of Wiraga, Wirasa, Wirama on Autistic Children with Kinesiology Approach

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Abstrack—The objectives of the research were to increase the wealth of innovative and creative dance for autistic children and increase the target of skills therapy in dance learning to exercise wiraga, wirasa, wirama with Kinesiology Approach. This study used Research and Development (R & D). The object was autistic children in Extraordinary School (SLB) Bina Anggita Yogyakarta, Special Region of Yogyakarta. The motions of dance crated throught kinesiology approach with autism' benefit-oriented. Data collection techniques were observation, in-depth interviews and documentation. Data analysis techniques were first levels, including problem and potency analytical activities, data analysis for product development, dan test and evaluation. The product evaluation used internal evaluation, which conducted by experts and practitioners of art and has expertise in teaching the students with autism. Data validation used instrument validation and product validation. The findings showed that characteristics of students with autim used as inspiration in creating the dance. The dance is a New Dance Creation with oriented to dynamical motion and music of East Java and completed with krincing properties on feet.

Keywords—*dance creation, therapy of wiraga, wirasa, wirama; kinesiology approach.*

I. INTRODUCTION

Autism is children suffered the disorder of communication, social interaction, sensory, play, and emotion. Moreover, they also suffer the mental disorder which affects to development and growth of children - as the result, there is a disorder ability of intellect, sense ability, social adjustment, and so on. The reasons; the network and brain function are out of sync - some of them have progressed rapidly, and others are mediocre. A prominent symptom in children with autism is having hyperactive behavior. Hyperactivity is a behavior pattern within-person showing on excessive activity. Hyperactive children have excessive active movements and unable to sit

quietly for a long period of time due to they have excessive energy. Autistic children often behave aggressive, destructive, and making noise in the class activities. The Attitudes and behavior might harm their self and others. Meanwhile, they still have the potential that needs to develop.

In dealing with the problems, an educator faces the problem on how educator using art education, especially

dance as autistic child self-control by occupational therapy to physically train children with autism. However, the problem occurs is that the material used to teach children with autism in dance is the majority of dance creations taken from YouTube and impact in limited material and teaching materials in learning Dance particularly [1].

A solution to solve the problem that an educator is obliged to innovate in developing materials based on competency standards and basic competencies according to children with special needs. In the field of dance art, there are still the numbers of limitations of practical material as learning material for children with special needs. If the material presented does not provide significant benefits for the development of the child with autism, then the learning outcome will not be on maximal. Meanwhile, autistic children have limitations in motoric which make them very difficult to imitate motions. But, it does not make children motivated and able to dance well [2]. The material selection should follow the learning needs of autistic children and provide positive changes to the child's development.

With the problems, this article tried to create a Creative Dance to improve the ability of autistic children in the exercise of wirasa, wiraga, wirama with kinesiology approach which aimed to increase the wealth of innovative and creative Tari. This is an art effort of responsible and characterized. And, the characteristics of students with autism used as inspiration in creating the dance.

The context of this problem is the material in teaching and learning to autistic children in the field of dance which the majority of creative dance material taken from YouTube and the material is not in accordance with the ability of autistic children. This fact proved by using the Dance X material with changed variations, then the dance is not in accordance with the original dance. This phenomenon also occurs in Extraordinary School (SLB) Bina Anggita Yogyakarta.

The important of the research are to creating a creative dance in line with the abilities and needs of students with autism. In addition, in the dance creation, ceng-ceng krinceng dance was designed specifically for autistic children as a therapy for wiraga, wirasa, wirama with a kinesiology approach. Another important aspect, this research might be a reference to improve learning materials based on Kinesiology Theory. The last but not least, this development research is

expected to be used as a guide for every school in learning Dance as a means of occupational therapy for autistic children.

The steps of dance creation were exploration, improvisation, evaluation, and composition. The particular research limited to Creation Dance with the Kinesiology approach, the feasibility, and effect of each motion aiming to stay at the background of the problem.

This research conducted at the Extraordinary School (SLB) Bina Anggita Yogyakarta and implemented to autistic children with active hyper or excessive activity. And, the results of this study might be used to students with the same characteristics.

The rest of this paper is organized as follow: Section II presents theoretical background and related works. Section III describes material & methodology. Section IV presents the obtained results and following by discussion. Finally, Section V concludes this work.

II. RUDIMENTARY

A. The Dance Creation

According to Hanna [1], "Dance is a conceptual natural language with intrinsic and extrinsic meaning." Means, dance has a meaning sense both from motions perspective and dance accompaniment. Those become a consideration for a choreographer.

The dance creator or choreographer captures the essence of the sensory experience in particular, and then uses new and imaginative movements/motions, and final, composes a dance to generate spontaneous responses [2]. This theory used as an analysis theory in the creation of motions in line with the characteristics of children with autism, ie observation of behavior and habits of autistic children. Then, the results of observations developed in accordance with the choreographer's abilities and knowledge, and it also developed according to the kinesiology approach. The process of creating simple dance work begins with ideas through exploration, improvisation, evaluation, and composition;

- Exploration, According to Jazuli, the notion of exploration is the process of thinking, imagining, feeling, and responding to an object to use as material in dance work. It might manifest into motions, rhythms, theme, etc. [3]. This theory used to observe the behavioral characteristics of autistic children, which have a habit of moving so that they bring innovative ideas as material for dance creation.
- Improvisation, According to Jazuli, improvisation is the main characteristic of spontaneity because improvisation consists of freedom. And with improvisation, there will be a new awareness of the nature of the motion expression, and also the emergence of experiences of the studied [3] In this stage, the choreographer or dance creator conducts experiments to get dance movements/motions and performs in front of a mirror in their studio. The formulated movements/motions will continue to expand on variation motions according to needs.

- Evaluation, after obtaining the appropriate movements/motions, the dance stylist begins to select which movements/motions select or not because it is impossible for all the movements to give to the dancer. Evaluation of dance involves an aesthetic assessment arising from the observer's perception toward the created dance. The evaluation carried out after the dancer completes the movements in order to get the maximum results. In addition, the dance work will be evaluated by dance experts and kinesiologists at this stage.
- Composition, the composition is the process of creating artworks that have never existed before. And, the composition is the process of selection or the formation of motion into a dance. According to Jazuli, composition or forming as the final goal of developing creativity is the creation of a composition or the creation of dance [3]. At this stage, the various types of motion are carried out in accordance with the order in consideration of the beauty of motion.

B. Characteristics of Autistic Children

Autism is a childhood disorder whose symptoms have arisen before the child reaches the age of three years. The cause of autism is a severe neurobiologist disorder that affects the brain function and the child is unable to interact and communicate with the outside world effectively. (Indonesian Autism Foundation)

Neurobiologically, suspected that there are three different places with different mechanisms as the factor of autism, as stated by Handojo [4] disorder function of the cortical mechanism to select the attention due to abnormalities in projection of ascending from cerebellum and brain stem, 2) impaired the function of limbic mechanism to obtain the information, such memory, 3) disorder in the information process by the association cortex and its distribution network. In sum, autistic children have the weakness of memorizing and interaction.

In addition, Ozonoff [5] in their writing described 11 children who show disinterest to others, containing feelings in routine and unusual body movements, such as waving their hands. The habits of autistic children are very physical and mental disorder. The behaviors of them are, such often behaving on their willing and does not want to order, undirected behavior (pacing, running, climbing, circling, jumping, flapping, screaming), aggressive, self-hurting, tantrums (raging), difficult on concentration, and repetitive behavior.

In line with Handojo, Safaria in [6] also stated that this disorder is an inability to interact with others, language disorders indicated by delayed mastery, echolalia, mutism, sentence reversal, repetitive and stereotypical play activities, and very strong memory.

According to Handojo [4], an integrated treatment carried out on autistic patients might be performed using therapy; namely a) behavior therapy, (ABA method or Applied Behavior Analysis), b) biomedical therapy, c) physical therapy, (such as bending the legs, bending hands, bending, standing balanced, walking to running), d) social therapy

(teach hanging out with peers, communication and interaction), e) Playing therapy, f) Developmental therapy, g) Music therapy, h) Drug therapy, i) Dolphin therapy, j) Interaction with regular schools, and k) Special education schools. In special education, a therapist is usually only able to handle a child at the same time.

Based on the statement, concluded that dancing can train several aspects of therapy, namely behavioral therapy related to dance attitudes, physical therapy related to motion dynamics and motion techniques, music therapy related to tempo and accuracy of rhythm, social therapy related to group dance type, play therapy associated with cheerful happiness and fun with friends, and developmental therapies related to children's talents. And, the behavior of autistic children uses as consideration for creating an innovative dance works in line with the needs of autistic children.

C. Therapy of Wiraga, Wirasa, dan Wirama

The term of Art Therapy is a form of therapy using a cognitive approach of a particular art form that serves to clarify the purpose of life that treated and change the beliefs, thoughts, and emotions, Ronan in Safaria [6]. Therapy education (therapy) is a type of healing to help individuals have the ability to push themselves to overcome problems in their lives, and help individuals to react and integrate with their social environment [7]. Some examples of integrated therapies include medical therapy, speech therapy, occupation therapy, behavioral therapy, and special education.

Dancing is closely related to the aspects of wiraga, wirasa, wirama. First, Wiraga, basically is closely related to how to assess the physical form of dance, especially the aspect of motion. From this perspective, the dancer's movement skills measured by the value index. For example, how the form of attitude and movement is, what do the dancer moves in a coherent and continuous manner, and so on [3].

Second, Wirama means to assess the ability of dancers on mastery the rhythm, both the musical rhythm of the accompaniment music and the rhythm of its motion. The sensitivity of dancers toward the rhythm determines the quality of the dance. For example, in Javanese dance, a dancer must know and aware when a motion must fall down on a gong or kenong instrument, when the rhythm of motion must be appropriate or not with the rhythm of the accompaniment and so on [3].

Third, Wirasa, aiming to achieve the wirasa, it is necessary to have a full appreciation, such as blended with the character, the movements/motions, and the expressions - appreciation means involving aspects of the sense of processing [3]. Through wirasa therapy, it expects that someone can control the emotions well because feeling relates to a person's feelings that become a positive impact for someone.

III. Kinesiology

Kinesiology comes from Greek, which consists of the word kinein means motion/move, and logos means science. So, kinesiology is the study of human movement. Kinesiology is the science of movement which is applied and explains the motion of the human body [8].

Kinesiology is a field of science based on the fields of anatomy, physiology, and mechanics. These three fields of

science play a very important role in analyzing an efficient, effective and safe movement related to the analysis of bones and joints (anatomy), the muscular nervous system (physiology) and human movements (mechanics); it will create in good [9]. First, Anatomy is the science of the structure of the human body and the relationship between parts and another. Second, Physiology is the science of the function or work of part of the body. And, Mechanics is the science of the motion of an object and the effect of force in the movement.

The relationship between dance and kinesiology is that motions are the main element of dance. Motion is the movement from one position to another. While Kinesiology is a branch of science that studies the human motion/movement related to the anatomy of the human body which has a motion function. The elements of movement caused by (1) bone as a means of movement, (2) muscle as a driving source, and (3) joints allow the movement [9]. This kinesiology knowledge can help the education to have a better understanding of students' motor basically as well as effective specialization in movement skills [8].

D. Related Works

The first research entitled "Efforts to build the Value of Nationalism Through the Learning Process of Dance in SMP N 3 Sumbang, Banyumas Regency," by Ahmad Sjuhada, Yogyakarta State University (UNY), 2008. The findings of the study showed that the role of Art Education, especially Dance in the Learning process.

The second research entitled "The Ability of Dance and Target Aspects of Occupational Therapy for Autistic Students," by Desilia Kusmitantia Wardani, 2012. The finding of the study showed that Dance can use as Occupational therapy for Autistic Children.

III. MATERIAL & METHODOLOGY

This study used Research and Development (R&D). According to Sujadi [10], Research and Development is a process or steps to develop a new product or complete an existing product, which can be accounted for. The product in this study is a dance work for autistic children as a therapy for wiraga, wirasa, wirama.

The development models in the form of dance work aimed to develop art products, especially Dance Education and Dance Learning in schools with special needs that has a function to improve and develop the quality of dance and learning education effectively and adaptable – means, it can adjust or adapt with the conditions and certain needs. Finally, the work uses as a process of therapy for autistic children according to the ability of the movement of autistic children.

This research included in the level 1 of research and development where researcher conducted research to find out the potential and problems of an object. In addition, also it conducted research to design products and test the product design internally (the opinions of experts and practitioners). Aiming to obtain the data, researchers used observation, documentation and in-depth interview methods. Interviews carried out to Dance Specialists, Kinesiologists, and Teacher/Practitioners of autistic children.

The subjects of this study were autistic students in Extraordinary School (SLB) Bina Anggita who took dance subjects in the afternoon class. Every student has a variety of autistic disorders, starting from low levels to severe levels. The dancing abilities are also different; there are those who quickly master the material and there are also those who cannot dance at all. Figure 1 presents the position of population and sampel or informant in the level 1 of research and development.

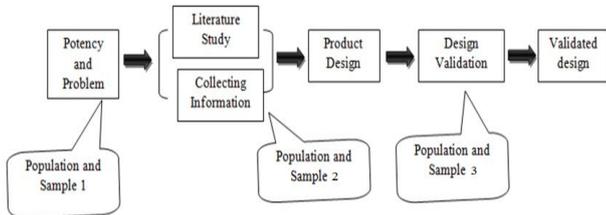


Fig. 1. Position of population and sampel or informant in the level 1 of research and development

Researcher used qualitative methods and established informants as data sources and selected through purposive and snowball sampling techniques. Population and sample 1 or informant needed at the first data collection stage to explore the potential and problems. The selected population and sample or the second informant aimed to explore the data source to find out what products needed for the research site. The selected population and sample or the informant in the third stage aimed to test the design of product internally which is performed by asking for opinions and suggestions to dance experts and dance practitioners toward the developed design by researchers.

Aiming to create a product in line with its purpose, this development research adopted the R & D development model of Alessi and Trollip in [11] and Dick & Carey's learning design model [12] the feasibility of the product; namely analysis and design. The creation flow describes in Figure 2 below:

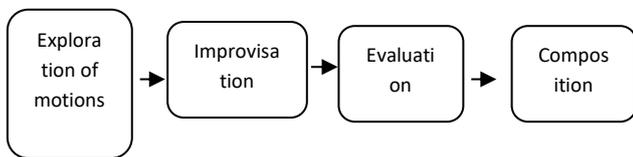


Fig. 2. Creation Flow

(1) Exploration, the dance creator or choreographer will observe the characteristics, behavior, the social symptoms, and emotions of autistic children. (2) Improvisation, the dance creator or choreographer performs studio work by looking for motion based on the characteristics of autistic children. (3) Evaluation, the dance creator or choreographer will select the motion based on the required motion by considering the aspects of balance, the type of movement of the hands and feet, head, and posture, and repetition of motion. And (4) composition, the choreographer will create the motion based on the various obtained movements.

IV. RESULTS AND DISCUSSION

a. The Behaviour of Autistic Children as the Inspiration in Create The Dance Creation

Extraordinary School (SLB) Bina Anggita, Yogyakarta is a school that handles children with autism and adopted a classical class model. The class divided into two classes: small class (Kindergarten and Elementary School) and large classes (Elementary School, Junior High School, and Senior High School). The dance lessons at SLB Bina Anggita are extracurricular which are held once a week every Wednesday starting at 10.00 - 10.30 for small classes and 10.30 - 11.15 for large classes.

In this dance extracurricular class, there is a number of children who are very enthusiastic to attend the learning process but some of them are not interested at all with dance lessons because every child has ability in their respective fields such they like to dance, sing, play music, call to prayer and sports. Table I is examples of children who have certain habits.

TABLE I. THE HABIT OF STUDENTS WITH AUTIMS IN SLB BINA ANGGITA

No	Name of Students	Habits
1	Wawan	Wawan has spiritual intelligence. He always yells greetings, calls to prayer and recites well compared to other friends. And, he also has the ability to play music with qosidahan-genre (Islam music-genre).
2	Ruli dan Nanda	These two children have good physical and social. But at first sight, people will not notice that they are autistic children due to they are generally like normal people, meanwhile only they have clapping and active behavior.
3	Dilla	Dilla has a quiet character but likes to pay attention, likes to daydream and play flowers. She has a hobby of dancing. Every dance lesson, Dilla is the most enthusiastic child and pays attention to every teacher's movements. Even at home, she has the habit of watching dance videos on YouTube.
4	Osa	Osa has good musical intelligence.
5	Pandu	Pandu has a character to speak loudly, opposes the teacher, angry and flapping the hand and self-hurting. Besides that, there are still many children who lack self-control, for example, they like running, pounding their legs, flapping their hands, going up and down in minutes and so on.

Based on Table I, concluded that the autism children have intelligence, different habits and even different characteristics. Therefore, all the differences character is used as inspiration for the creation of dance and the basis for creating the motion.

b. Creation of Creative Dance Motions as Therapy of Wiraga, Wirasa, Wirama

The creation of Ceng-ceng kringceng dance designed in a simple way in order the children are easy to memorize and move. And, the aspects of wiraga, wirasa, wirama achieved well. The therapy of wiraga, wirasa, wirama aims to exercise the muscle contraction in order the children can control motion.

By the behavior and characteristics of autistic children, an assessment is needed to measure wiraga, wirasa, and wirama therapy. Based on the scoring of each aspect, the following are the obtained scores; wiraga obtained the highest score of

16, wirama obtained the highest score of 12, wirasa obtained the highest score of 4, and kinesiology obtained the highest score of 28. The total score in each aspect is 60.

TABLE II. THE RESULTS OF ASSESSMENT 1

No	Aspects	Highest Score on every aspect	Examiner 1	Examiner 2	Examiner 3	Examiner 4	Total of Score
1	Wiraga	16	12	12	10	9	43
2	Wirama	12	8	9	7	7	31
3	Wirasa	4	4	3	3	4	14
4	Kinesiology	28	20	20	21	14	75
	TOTAL	60	44	44	41	34	155
	SCORE	100	73	73	68	57	

Furthermore, it continues an assessment on ceng - ceng krinceng dance. The results of assessment 1 are presented in Table II. The result of assessment 1, the obtained score in creating Ceng-ceng Krinceng dance still number of lacks and the score is low. Revision based on input and suggestions from creators and kinesiology experts are a simplification of motion, repetition of motion, adding the vocal accompaniment, and reduction in duration from 7 minutes to 5 minutes. Then, it continues to assessment 2. The results of assessment 2 present in Table III.

TABLE III: THE RESULTS OF ASSESSMENT 2

No	Aspects	Highest Score on every aspect	Examiner 2	Examiner 3	Examiner 4	Total of Score
1	Wiraga	16	16	15	16	62
2	Wirama	12	12	11	12	47
3	Wirasa	4	4	4	4	15
4	Kinesiology	28	25	26	27	106
	TOTAL	60	57	56	59	230
	SCORE	100	95	93	98	

Based on Table III on the results of assessment 2, the ceng - ceng krinceng dance obtained a good result. Namely, the design of dance work has been tested by experts and practitioners with a score of 95.75. Means, quantitatively, the design of dance work obtained very good score and continued to produce and tested externally.

c. The Study of Dance Creation

The dance creation assessed through various aspect, they are:

- 1) Theme is the joy/fun of children while playing *krincing*.
- 2) Title, the title of dance work is "Ceng – ceng krinceng," with the reason of taken from name its property used, that is *krincing*.
- 3) Creation Orientation. The dance has East Java oriented because of the dynamic of motions and music.
- 4) Initial Stimulation is stimulation of idea and audiovisual because the inspiration of idea obtained through observation of the surrounding environment. Namely, it occurs when the observation process to autistic children with having limitation to control the behavior (hyperactive and uncontrolled).

- 5) Accompaniment Orientation is East Java oriented accompaniment. The music is the set of Javanese Gamelan, such as kendang, demung, saron, kenong, kempul, gong, bonang, bonang penerus, and peking. The accompaniment not only functions as dance accompaniment but also help clarify the situation and illustration the characteristic of autistic children. Also, it adds with lyric and song.
- 6) Makeup and Clothing. The makeup is beautiful/handsome makeup. The hairstyles are a bun hairstyle and flower accessories for women and wearing headbands / udeng for men. The costume was quite simple, consisting of knee-length clothes and pants, and rampek with the monte-monte made of small krinceng. It also added with earrings, wristbands, and anklet given krinceng.
- 7) Property is *krinceng* and formed like an anklet.
- 8) Number of Dancers. This dance work is a single type of dance, but it also can be danced in groups.

V. CONCLUSION AND FUTURE WORK

Ceng - ceng krinceng dance is a creative dance adapted from the characteristics of autistic children. The characteristics of autistic children, who are hyperactive and not easy to control, become the inspiration of choreographers or dance creators to create joyful dances and train the autistic children in controlling their movements. This dance created with a joy and fun theme. The dance in the form of New Creation Dance is oriented towards the dynamic movements and music of East Java, accompanied by songs lyric to add to the atmosphere. The property used *krincing* on the feet. The dance also created in the framework as a therapy for wirasa, wiraga, and wirama. Based on the results of the test from experts, concluded that the ceng - ceng krinceng dance might use as therapy for autistic students. The implication, this dance can be recommended to be widely used, especially for children with autism.

For further researchers, it suggests conducting research with a broader scope of study such as creating a dance with variation, unique, interesting, and using the background of the object. Aimed to improve and provide greater influence on dance and appreciation skills than only downloaded from YouTube or modifying/replacing the existing actions. In addition, other researchers can develop this research in more depth and use more many data collection techniques such as interviews, so that the collected data will be more accurate and more in-depth.

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