

Learning Dance *Likok Pulo* through Scientific Methods for Creativity

Yeni Zuryaningsih, Tati Narawati, Trianti Nugraheni

School Postgraduate of Art Education

Universitas Pendidikan Indonesia

Bandung, Indonesia

yenizuryaningsih31@gmail.com

Abstract—Implementation of a learning requires methods that are appropriate to the condition of the class, material and goals that achieved. The scientific method contained in the curriculum year 2013 can enhance students' creativity in learning traditional art, and able preserve local wisdom. This research aims to test the scientific method in learning *Likok Pulo* dance as an effort in increasing students' creativity in school. The learning is held in 5 meetings, consisting of pre- test, treatment, and post-test through observing, asking, associating, exploring, and communicating. This research uses quantitative paradigm, interdisciplinary approach and quasi experiment method with time series design pattern. As for the sample are the students class X MIPA 7 as many as 32 people. The theories used as an indicator of creativity are: imagine, invest, improve, and incubate. Research findings prove that there is an influence on the improvement of student's creativity through the result of t test that is $t_{count} > t_{table}$, with result $10 > 1.696$.

Keywords—learning dance; *Likok Pulo*; methods of scientific; creativity

I. INTRODUCTION

Education is a very important aspect to actualize the intelligence of the nation and to advance the country into a better direction and able to compete with developed countries, especially in the world of education. According to UU No. 20 year 2003 Chapter 1 Article 1, which reads "Education means conscious and well-planned effort in creating a learning environment and learning process so that learners will be able to develop their full potential for acquiring spiritual and religious strengths, to develop self-control, personality, intelligence, morals and noble character and skills that one needs for him/herself, for the community, for the nation, and for the state [1]. The problems in education often occur during implementation, both in formal and non-formal education. The problems do not escape the negative factors that hinder the learning process. The negative factors come from various aspects, certainly related to 7 components of learning that are always associated, among others are purpose, students, teachers, and curriculum (*RPP*), strategy, media and evaluation. The learning process will occur appropriately if students and teachers are able to collaborate at the time learning process takes place. To realize it, certainly, it is difficult for teachers to confront students who do not have

evenly distributed motivation during the learning process in class.

The lack of student's motivation will bring an impact on learning outcomes that affect student's creativity. Creativity certainly relates to the talents of each student. As Susanto quoted from Supriadi that according to Guilford, personality includes cognitive dimensions (talent) and non-cognitive dimensions (temperamental interests, attitudes, and qualities) [2]. In this manner, creative people have significant personalities, which is different from people who are less creative.

According to the matter, one of the ways to raise a creative attitude in children is by applying models and methods / approaches that vary according to the material will be taught. All of the teaching and learning process must be adapted to the curriculum applied by the Minister of Education in Indonesia. Rohman argues that there is a growing demand for changes in educational curricula that prioritizes building the nation's character and also guiding students to become positive in everything that good for their future [3]. This also supported by Sani's opinion that the 2013 curriculum development is carried out in an effort to improve the quality of education to produce graduates who are creative and able to confront the future life [4]. Therefore, teacher must have a specific strategy for implementing learning in accordance with the current curriculum development, so that students are able to achieve learning goals.

II. THEORY

A. Learning Dance

Hamalik adduced, "learning is a structured combination that includes the human elements, materials, facility, equipment, and procedures that influence each other in achieving learning objectives." There are the learning characteristics as follow [5]:

- Learning aims to form students in a particular development by placing students as the center of attention, while others as introductory and supporter.
- A procedure is designed to achieve the stated goals in order to attain the objective optimally through systematic and relevant steps.

- It was marked by the activities of students physically or mentally active. Students is one of the absolute conditions for teaching and learning.
- Having a time limit in achieving the learning objective that has been determined according to the achievement of material.
- Having evaluation from all of the learning activities due to evaluation, because evaluation is a part that cannot be separated from the learning process.

B. Scientific Methods

According to Sanjaya approach can be interpreted as the starting point or our point of view towards the learning process [6]. According to Fadlillah scientific approach is the approach that used in learning through a scientific process [7]. The participants learn and gain something by their own senses and their mind, so that they experience it directly in the process of gaining knowledge.

The stages in the implementation process refers to the syntax of the Scientific learning model proposed by Hosnan the steps of the Scientific approach in the learning process includes obtaining the information through observing, questioning, experimenting, processing data or information, presenting data or information, analyzing, associating, concluding, and creating and exploring / communicating [8]. So that, the steps of learning carried out in the learning *Likok Pulo* Dance are as follows.

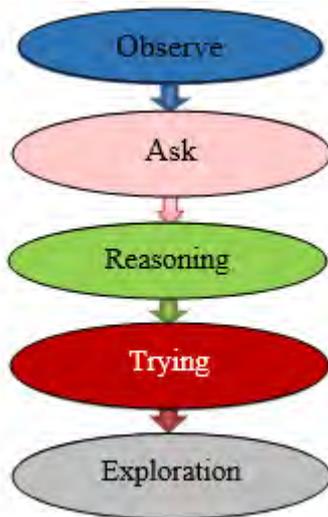


Fig. 1. The steps of scientific learning [4].

The chart above will be applied in each meeting in accordance with the steps and materials that have been prepared in the learning implementation plan.

C. Creativity

If students' creativity is good, then the learning outcomes obtained by students will also be good then the learning objectives will perfectly have channeled. Munandar clarify that "creativity is an experience that expresses and actualizes the identity of an individual in an integrated form that relates to

oneself, nature, and others" [9]. As according to Sumardjo creativity is "a conditions, attitudes, or mental states which characteristic is very specific and almost impossible to be defined, individual as a manifestation of human freedom" [10]. Based on the opinion, it can be concluded that creativity is a very complex activity, which involves the emergence of new ideas based on the existing concept. Creativity can also be used as an indicator in achieving the maximum learning outcomes.

Jeff De Graff and Khaterine classify the creativity in the left and right quadrants within a circle diagram as follows [11].

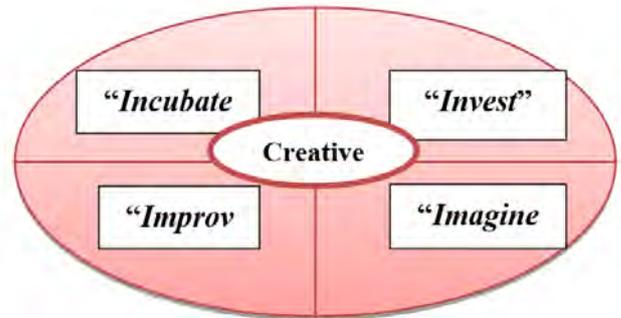


Fig. 2. Creativity development stages.

The circle chart above is an indicator of creativity to be observed by researcher during the learning process. Certainly, it is related to the material presented in each meeting. The 4 aspects begin with imagine (the exploration of idea or new invention), invest (achieving short-term goals), improve (making overall changes) and incubate (idea initiator, long-term development)

D. The Composition of Dance

In dancing practice, students will be directed to explore four types of *Likok Pulo* movement to be developed. The movement includes elements of dance as the basis for students to contrive creation dance. Masunah said that to contrive a dance a process is needed starting from 1) determining ideas, 2) exploring and improvising, 3) arranging or structuring movement, and 4) serve as a product. In connection with four processes above, students will contrive / create movement according to four stages in developing a motion [12].

Desfina noted that exploring a movement can be done in various activities, one of which is the exploration through the sense of sight and comprehend an object fully [13]. Therefore, exploration is the process of searching for various kind of movement, which requires student's ability and personal experience. There will be improvisation process after exploration which means students are invited to summarize the movement that have been found according to observation of *Likok Pulo* dance videos based on 4 core movements in that dance. Through these activities, students are expected to develop their potential. Then, these processes will continue by incubation process that is arranging process of what has obtained previously. Through this activity, students can develop their potential and as the result, their creativity will well develop.

Likok Pulo dance was chosen as material due to it had never been studied by students. In addition, this dance has neutral movement that can be performed by all students. The movement in this dance is varying, powerful, dynamic, energetic, and easy developed by students.

III. METHOD

This research used quantitative paradigm that finding is in the form of number and later described in order to aid the reader. The approach used is interdisciplinary by using literature study to find out the Likok Pulo dance art and pedagogical science as the implementation of learning in the classroom. Further, the method that used is experimental. According to Sugiono experimental method is a research method that used to find out the impact of a certain treatment against others under a controlled condition [14]. The experimental method used in this research is quasi-experimental design that divided into time series design and nonequivalent (control group design). The pattern used is time series design, Sugiono said that group which used for research in this design cannot be chosen randomly [15]. Before being treated, the group is given a pre-test up to 4 times with the intention of finding the stability and clarity of the group's condition. If the result of each pre-test are different, it means the group's condition is unstable, erratic and inconsistently. After the stability of group clearly identified, then the treatment is given. Only one group that is used in this research, so it does not require a control group. The following is the time-series design in figure 3.

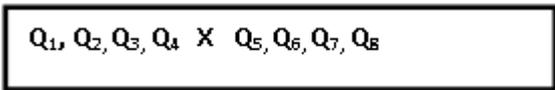


Fig. 3. Time series design.

A good pre-test result is $Q_1 = Q_2 = Q_3 = Q_4$ and a good treatment result is $Q_5 = Q_6 = Q_7 = Q_8$. The extent of the treatment influence is $= (Q_5 + Q_6 + Q_7 + Q_8) - (Q_1 + Q_2 + Q_3 + Q_4)$

This study uses similar design but different in treatment. The treatment is arranged as many as 5 times meeting in series, that is 5 pre-tests, 5 times treatment, and 5 times post-test as shown in the table below.

TABLE I. THE PARADIGM OF TIME SERIES DESIGN

Pre- test	Treatment	Post- test
Q ₁	X	Q ₂
Q ₃	X	Q ₄
Q ₅	X	Q ₆
Q ₇	X	Q ₈
Q ₉	X	Q ₁₀

Information:

Q₁, Q₃, Q₅, Q₇, Q₉ = pre-test score before being treated

X = Treatment using the Scientific method

Q₂, Q₄, Q₆, Q₈, Q₁₀ = post-test score after being treated.

The population in this study consists of 306 students of SMAN 3 Banda Aceh as many as 10 classes. 250 students majoring natural science (MIPA), and 56 students majoring Social science, in order to ease the conduction process of research the number of students be diminished. In other word, the sample is students from class X MIPA 7 as many as 32 people (12 man and 20 women). The sample is non-probability sample by mean of purposive sampling that is selected be based on specific characteristics.

IV. RESULTS AND DISCUSSION

Based on data calculation and data analysis, researcher would like to describe 4 aspects of students' creativity (imagine, invest, improve, and incubate) after 5 times treatment held.

TABLE II. THE INCREASE IN CREATIVITY IN 4 ASPECTS.

Creativity Aspect	Meeting (Post- test)					Total Score
	P1	P2	P3	P4	P5	
Imagine	2.53	3.56	3.91	4.03	4.19	18.22/ 4 = 4.55
Invest	2.91	3.38	3.91	4.09	4.50	14.29/ 4 = 3.57
Improve	3.81	4.00	4.19	4.34	4.44	16.78/ 4 = 4.19
Incubate	2.63	3.13	3.56	3.94	4.09	17.35/ 4 = 4.33

In order to make it clearer, it described in the form of a graphic see in the figure 4 below.

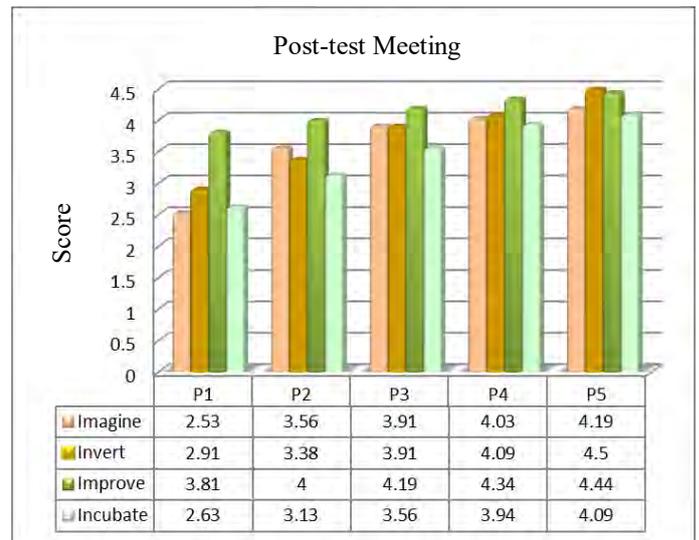


Fig. 4. The increase in creativity in 4 aspects.

The increase of students' creativity in the form of quantitative in each meeting on figure 5 and 6 as follows.

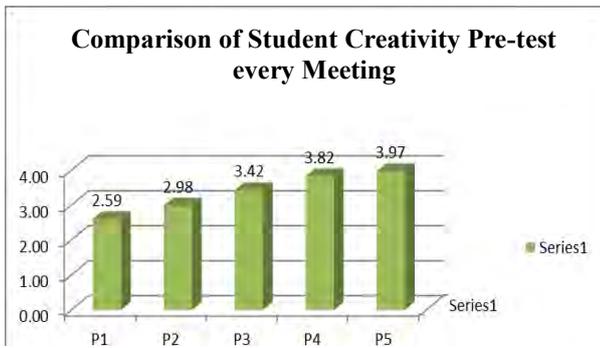


Fig. 5. Comparison of student creativity pre-test every meeting.

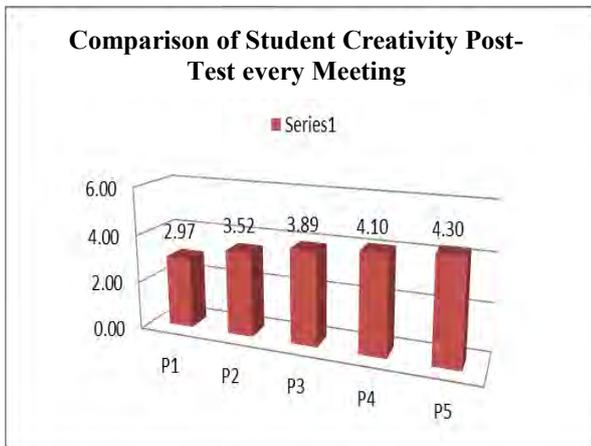


Fig. 6. Comparison of student creativity pre-test every meeting.

Based on the above explanation of the result of each meeting, it was concluded that the average score of students' creativity on 4 aspects (imagine, invest, improve and incubate) with the overall scientific method before the treatment given (pre-test) is 3.35 and after treatment given (post-test) is 3.75. The increase is 4.0 with t arithmetic of 6.6, if t arithmetic is greater than t table ($t_{arithmetic} > t_{table}$), thus, the hypothesis is accepted, $6.6 > 1.696$ which means that learning *Likok Pulo* dance by scientific method is successfully increasing the students' creativity. The following is the comparison graphic of student' pre-test and post-test for 5 times meeting in figure 7 below.

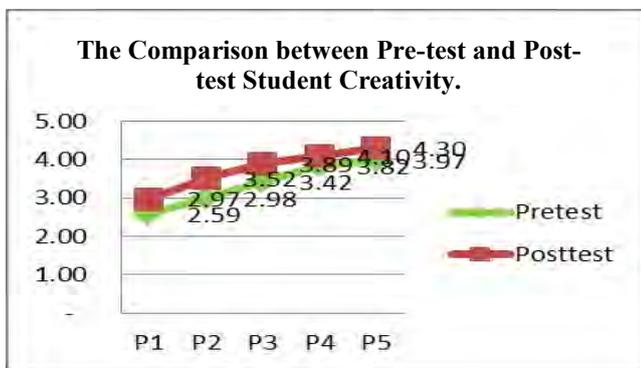


Fig. 7. The comparison between pre-test and post-test student creativity.

The graphic above asserted that the implementation of learning *Likok Piulo* dance through scientific method for class X MIPA 7 Senior High Scholl 3 Banda Aceh has increased, although the increase in creativity does not reach grade 5.00 (very creative), but the student categorized as creative students because of the score that obtained increased in each meeting. However, there also students who have limitation in achieving very creative grade, due to for exploring movement with floor patterns and the collaboration of traditional and modern movement requires a longer training time to produce work that has aesthetic value and uniqueness. Therefore, the research questions solved which proved by the learning result based on the above graphic. Hence, scientific method is very appropriate that applied to increase students' creativity not only in dance but also in others field.

V. CONCLUSION

A research entitles learning *Likok Pulo* dance through scientific method to increase the creativity of senior high school students in Banda Aceh is done in 5 meeting. Through 4 various basic movements of *Likok Pulo* named *Saleum Pembuka* motion, *Syekh Ahmad Badron* motion, *He Allah* motion, and *Takoh Bak Jok* motion, the creativity of students successfully increased. The four aspects of creativity that expected to be improved are: imagine, invest, improve and incubate. After given a treatment, the prominent aspect of creativity is imagining 4.55 (creative), while less prominent aspect of creativity is investing 3.57 (quite creative). The increasing of imagine aspects caused by students' enthusiasm in developing their movement. Whereas, the factors that made invest aspect less prominent is students' hesitation due to the differentiation of their social background.

Based on the conclusion above, the advantages of this research are discover new knowledge related to *Likok Pulo* dance art, students become able to perform *Likok Pulo* and to develop it according to their group creativity, and able to analyze own work and others based on theory presented by researcher. Thus, learning *Likok Pulo* can develop students' creativity in line with their daily activity experience. However, there is also weakness and lack of this research, which related to learning process. It is the lack of time caused some students unable to dance and become dependent in developing the movements.

This happens because of the difference of interest and students' background. Indeed, not all students like dance material. Therefore, this research can be continued on other material with the same method, and becomes a source during learning process. Basically, the determination of method/ approach is selected after reviewing the material to be taught. It is because each material is different in levels of difficulty to be understood by students. Therefore, a teacher must comprehend the material and realize the condition of each class in order to create an effective learning process. Researcher also expresses gratitude to those who help from the preparation of the proposal, research process to the preparation of thesis.

REFERENCES

- [1] Diktat, Undang-undang No. 20 Tahun 2003 Tentang Sistem Pendidikan Nasional. Jakarta: Departemen Pendidikan Nasional, 2003.
- [2] A. Susanto, Perkembangan Anak Usia Dini Pengantar Dalam Berbagai Aspeknya. Jakarta: Fajar Interpratama Offsite, 2011.
- [3] M. Rohman, Kurikulum Berkarakter. Jakarta: Prestasi Pustakakarya, 2012.
- [4] R.A. Sani, Inovasi Pembelajaran. Jakarta: Bumi Aksara, 2015.
- [5] Hamalik, Psikologi Belajar dan Mengajar. Bandung: Sinar Baru Algensindo, 2008.
- [6] W. Sanjaya, Strategi Pembelajaran. Jakarta: Kencana, 2006.
- [7] Fadhillah, Implementasi Kurikulum 2013 dalam Pembelajaran SD/MI, SMP/MTS, & SMA/MA. Yogyakarta: Ar Ruzz Media, 2014.
- [8] M. Hosnan, Pendekatan Saintifik dan Kontekstual dalam Pembelajaran Abad 21. Bogor: Ghalia Indonesia, 2014.
- [9] E. Munandar, Kreativitas dan Keberbakatan, Strategi Mewujudkan Potensi Kreatif dan Bakat. Jakarta: Gramedia Pustaka Utama, 2002.
- [10] J. Sumardjo, Filsafat Seni. Bandung: Penerbit ITB Ganesha, 2002.
- [11] J. Degraff and K.A. Lawrence, Creativity at Work: Developing the Right Practices to Make Innovation Happen, University of Michigan Business School Management Series. Willey: Jossey-Bass a Wiley Company, 2002.
- [12] J. Masunah, Tari Pendidikan (Handout). Bandung: FPBS UPI, 2012.
- [13] Desfina, "Tari Kreatif: Paradigma dalam Pembelajaran Tari di Sekolah. Jurnal Pendidikan Seni Kagunan," vol.3, no.2, 2009.
- [14] Sugiono, Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R & D (cetakan ke 16). Bandung: Alfabeta, 2014.
- [15] Sugiyono, Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, dan R & D (cetakan ke-23). Bandung: Alfabeta, 2016.