

Higher Order Thinking Skills (HOTS):

Improving the Pedagogic Competency of Dance Education Students in Indonesia University of Education

Heni Komalasari*, Dewi Karyati, Frahma Sekarningsih, Heny Rohayani

Universitas Pendidikan Indonesia

Bandung, Indonesia

*Henikom@upi.edu, dekar@upi.edu, Frase@upi.edu, Rohayaniheni@yahoo.com

Abstract—The dance education department of the Indonesian University of Education has the task of providing education for prospective dance education teachers according to field needs. The curriculum applied in the dance education department includes various subjects which are expected to have relevance to the field and can equip students to become prospective teachers who are ready to use in the field. The research carried out aims to improve student pedagogic competence through HOTS learning in the dance planning course. Higher Order Thinking Skill is a 21st century learning that is recommended by the current curriculum. The development of critical thinking including analytical, evaluation and creative skills is expected to make students always critical in finding innovations and solutions in learning. The lesson planning course is a course related to providing students practically with learning planning as one of the competencies that a prospective dance educator must possess. In this course students will identify, study, and find out how a design model for implementing dance learning in high schools that emphasizes the process of creativity and benefits for the development of students in developing their various potentials. The curriculum in effect becomes the basis for processing teaching materials, methods, and evaluation of dance education. The results of the study using quantitative methods showed a significant change in the ability to think critically which supported the improvement of students' pedagogical competence, namely before the treatment the average score was 65.6 and after treatment reached an average value of 85.4.

Keywords—*lesson planning courses, pedagogic competence, Higher Order Thinking Skills, students*

I. INTRODUCTION

Teachers are the spearhead of educational success. An educator must have academic qualifications and competence as a learning agent, be physically and mentally healthy, and have the ability to realize the goals of national education [1]. This is reinforced by Government Regulation No. 14 of 2005 on Teachers and Lecturers, states that "Teachers are professional educators with the main task of educating, teaching, guiding, directing, training, assessing, and evaluating students in early childhood education through formal education, basic education, and secondary education". Based on this, it is very important for a teacher to have competencies that support the success of

the educational process in accordance with the demands of the times. Competence is a set of knowledge, skills, and behaviors that a teacher or lecturer must possess, appreciate and master in carrying out professional duties. Teacher competence includes pedagogic competence, personality competence, social competence, and professional competence.

The department of dance education at the Indonesian University of Education has a duty to provide education to shape the competencies of prospective dance education teachers in accordance with the needs of the field. The curriculum applied in the dance education department includes various subjects which are expected to be relevant to the field and can equip students to become prospective teachers who are ready to use in the field. The dance learning planning course is part of a group of subjects implemented in the dance education department. Learning planning courses are included in the group of major subject areas that function to develop student mastery of teaching and learning dance. In the dance learning planning course, students will identify, study, and find out how to become a good planner for dance learning in high schools which emphasizes the process of creativity and benefits for the development of students in developing various potentials. The curriculum in effect becomes the basis for processing teaching materials, methods, and evaluation of dance education. It is very important to optimize student competence in teaching in schools because methodological abilities are the basis for the development of teacher professionalism for dance education students. Based on this, the research team who teaches the lesson planning course intends to develop a lecture program which is expected to have an impact in optimizing the teaching competence of dance education students. In this study, the students studied were 5th semester students who took a lesson planning course, which is a course that provides reinforcement of pedagogical competence for a prospective educator.

The 21st century curriculum, known as the Industrial Revolution 4.0 century. shown by the rapid changes in various aspects of life, including the development of science and technology that affects lifestyle and ways of interacting, as well as competence in the world of work. These various developments affect the skills of each individual to think critically, creatively, and the ability to make decisions in

solving increasingly complex life problems. Indonesia as a developing country must be able to address this problem by preparing various sectors to cope with these developments, one of which is the education sector. 21st century education should be able to form creative and adaptive young people. These people will be able to come up with various new ideas in a smooth, flexible, and detailed manner. Of course, in conveying ideas, opinions, opinions, and facts, it will be adjusted to the context [2]. The world of education must accommodate various demands for the influence of today's developments. Higher Order Thinking Skills are competencies that millennials expect in the field of education. So that prospective teachers are always critical of various developing aspects in education. HOTS is a higher way of thinking than memorizing facts, defining facts, or applying rules, formulas and procedures [3]. HOTS requires us to do something based on facts. Making connections between facts, categorizing them, manipulating them, placing them in new contexts or ways, and being able to apply them to finding new solutions to a problem. It is imperative to form 21st century teacher candidates who have the ability to think critically, so that they can always find solutions to the educational problems they will face in the field. Mastery of a teacher's pedagogic competence includes one of them in making a lesson plan. As we know that learning planning in curriculum implementation has an important role in achieving learning goals. Prospective educators are expected to have the critical ability to design innovative learning which will certainly result in optimal educational goals.

II. METHODS

In the implementation of this study using a qualitative approach using descriptive analytical methods, where the researcher presents the data descriptively with quantitative data to strengthen the qualitative data. Researchers attempt to describe the results of the process data collection and the results of research on students' critical thinking skills in finding and developing an innovative learning plan.

III. RESULTS AND DISCUSSION

The data presented in this chapter is based on the results of research conducted during the even semester lecture period. The implementation is not only face-to-face (offline), but due to the pandemic conditions that have occurred with the outbreak of the Covid-19 virus, there has been a policy policy from the government for non-face-to-face (online) learning. So that face-to-face meetings were held only until March, so there were only 5 meetings offline, and continued with 11 online meetings. However, to maintain the quality of lecture results, the research team continues to create learning programs using HOTS in online learning.

A. *Observation Result Data on HOTS Thinking with Learning Planning Material (Before Treatment)*

Face-to-face learning from meetings 1-5 and online at meetings 6-7 is conducted using the lecture method to convey basic concepts about lesson planning. Students only listen and

give questions if they don't understand. With learning that refers to LOTS (Lower order thinking skills) and MOTS (Middle order thinking skills), namely at the level of ability C1 to C3, when students are invited to argue by analyzing, evaluating and being able to make things both written and oral they are less because they are used to it. with a 1-way communication system and are accustomed to not being stimulated by various things that stimulate their critical thinking skills. Following are the results of their assessment of their ability in higher-order thinking using pedagogical material related to planning dance lessons. From the data obtained about thinking hots with learning planning material, it can be concluded that learning that does not stimulate students' critical thinking skills causes students to become passive, students become less challenged to find things that they think need to be improved, for example about various things related to design. learning whose content is not in accordance with the regulations rolled out in the 2013 curriculum. In the end the ability to analyze is very lacking, because it is not accustomed to finding solutions to the problems posed, the ability to argue is very lacking to provide criticism or suggestions for something that is considered a problem, find a solution be it in the form of design, the content innovation of a lesson plan is very low, and it needs to be treated as a pedagogical competence of a dance educator.

B. *Observation Result Data on HOTS Thinking with Learning Planning Material (After Treatment)*

After going through the tests in the next eight midterm examinations, even though they were online, learning was directed at increasing the ability of students' higher order thinking skills which were oriented to the C4, C5, and C6 domains. Adjustment of conditions is carried out from revising the RPS, to learning activity programs, but all are oriented towards the learning process that stimulates students' high-level thinking skills to improve their pedagogical competence. Conducted in 8 meetings after the UTS was implemented. Each meeting the researchers used learning models contained in HOTS learning, such as science, social inquiry, inquiry, problem solving, and discovery. Students are directed to be able to improve their analytical, evaluation and creative skills in response to the given material. Each meeting is individual and some is group. Some of the models used in HOTS learning are a combination of clumps of social interaction models, personal and information processing that are applied to each different meeting (can be seen in the RPS Based on the results of research at the time before and after treatment using HOTS learning to improve the pedagogical competence of prospective educator students in the lesson planning subject, there is a significant difference between the results of research before and after treatment. Students can improve their optimal pedagogical competence [1], namely 1) Understanding students in depth, which includes understanding students by utilizing the principles of cognitive development, personality principles, and identifying students' initial teaching provisions. 2) Designing learning, including understanding the foundation of education for the benefit of learning which includes understanding the

foundation of education, applying learning and learning theory, determining learning strategies based on student characteristics, competencies to be achieved, and teaching materials, and compiling learning designs based on the chosen strategy 3) Carry out learning which includes arranging learning settings and implementing conducive learning. 4) Designing and implementing learning evaluations which include designing and implementing evaluation (assessment) of learning processes and outcomes on an ongoing basis with various methods, analyzing the results of process evaluation and learning outcomes to determine the mastery level, and utilizing the results of learning assessments for improvement the quality of the learning program in general. 5) Developing students to actualize their various potentials including facilitating students to develop various academic potentials, and facilitating students to develop various non-academic potentials. In the table 1, the treatment given, namely learning with HOTS, can improve student pedagogical competence in learning planning courses. This is indicated by an increase in the indicators of the cognitive domain, namely the ability to analyze, evaluate and create.

TABLE I. OBSERVATION RESULTS DATA BEFORE AND AFTER TREATMENT TO IMPROVE STUDENT PEDAGOGICAL COMPETENCE AT THE LEARNING PLANNING COURT

Assessment	Hots Assessment Items			Average
	<i>Analysis</i>	<i>Evaluation</i>	<i>Creation</i>	
Before treatment	66.3	66	66	65.6
After treatment	86.9	87.88	87.3	85.4

IV. CONCLUSION

Based on the results of data processing in chapter 4, it can be concluded that the treatment given, namely learning with HOTS, can improve student pedagogical competence in learning planning courses. This is indicated by an increase in the indicators of the cognitive domain, namely the ability to analyze, evaluate and create. In the initial data, the average result of the Mid-Semester Examination or before the treatment of learning outcomes is 3.25, so a significant increase is obtained in the results of the Final Semester Examination is 3.80. So it can be concluded that this research is successful. In addition, the data from interviews with students showed that they were very enthusiastic about lectures using Higher Order Thinking Skills learning. According to them, with HOTS students become active, stimulate critical thinking, analytical thinking, evaluative thinking and creative problem solving.

REFERENCES

- [1] Mulyasa, Guru dalam Implementasi Kurikulum 2013. Bandung: Remaja, 2014.
- [2] Y. Abidin, Pembelajaran multiliterasi: sebuah jawaban atas tantangan pendidikan abad ke-21 dalam konteks keindonesiaan. Bandung: Refika Aditama, 2015.
- [3] N.P. Adi and K. Yohanes, "Meningkatkan Higher Order Thinking Skill dan Sikap Terbuka Melalui Media Pembelajaran Android," Journal of Komodo Science Education, vol. 01, no. 01, pp. 79–94, 2018.