Development Of Creative Learning Management In Students Of Education Management

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Abstract

Graduates of the master program must have eight competency skills, one of which is the creative through scientific research. It is necessary to conduct research on the impact of creative learning management in order to meet the achievement of the competence of graduates of the master program. This research is generally a research that aims to develop a creative learning management model. The research method used is the Research and Development (R & D) method. This study has succeeded in creating syntax of learning management models N3K-based (Niteni, Nirokke, Nambahi; and Creative). The N3K learning model has been successfully implemented in the Education Management Study Program at the Graduate School of Education, Sarjanawiyata Tamansiswa University. These results are indicated by an increase in each cycle after the N3K learning model. In the initial cycle the N3K learning model had an average achievement of 58.10%, in the first cycle had an average achievement of 70.48%, in the second cycle had an average achievement of 80.48%, and in the third cycle had an average achievement of 91.43 %. The level of creativity of N3K learning models is higher than that of non N3K learning models. The average increase in the level of non-N3K learning model creativity was 14.76%, while the average increase in the level of creativity of the N3K learning model was 33.33%.

Keywords: Creative Learning, learning management, Education Management

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Background

The mandate of Law No. 20 of 2003 concerning the National Education System article one states that education is a conscious and planned effort to realize a learning atmosphere and learning process so that students actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and the skills needed by him, society, nation, and state. In the law clearly stated the purpose of education is to realize the learning process that actively develops the potential of students.

The problem of the education sector in Indonesia is the weakness of the learning process. The learning process in universities does not yet use innovative learning-oriented learning that is student-centered. The learning process in universities still provides a lot

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of learning with a variety of teaching materials that must be memorized, so that the learning process is not directed to build and develop the character and potential of students. The learning process is not directed to form intelligent people, has the ability to solve life problems, and is not directed to form creative and innovative humans.

Basically everyone has creative potential and the ability to express themselves creatively in various fields in different ways. The important thing in education is that creative talent can and needs to be improved and developed early (Harianti & Margaretha, 2015: 176). Watts & Blessinger (2017) states that creativity involves cognitive and non-cognitive processes at the personal level as well as disciplinary, socio-cultural, and other environmental factors. Creative learning is a deliberate action. Creative learning must begin at the earliest grade level, and must be embedded in all domains and learning in ways that continually foster creative thinking and problem solving.

Learning outcomes based on competencies to be achieved are (1) cognitive, (2) affective, and (3) psychomotor but have not followed up on creative (4) competencies, and (5) innovative. In the Indonesian National Qualifications Framework (KKNI), graduates of the Master Program must be able to develop knowledge, technology, and / or art in their scientific fields or professional practice through research, to produce innovative and tested works. Creative and fun learning requires an innovative creative learning management. Lecturers should develop their creativity to plan, prepare and make innovative learning processes. High student creativity will produce innovative products. For this purpose, the lecturer must have extensive knowledge about learning and the internal and external conditions of students. Reigeluth (1983) who has laid the basics of instructional optimizing the learning process are instructional conditions, instructional methods, and instructional outcomes. Management of innovative creative learning is intended to (1) the organizer of learning material (2) convey or uses learning methods, and (3) manage the learning desired by scientists.

Graduates of the master program must have eight competency skills, namely being able to develop logical thinking, critical, systematic, and creative through scientific research, creation of designs or artwork and publishing writings in scientific journals; able to manage, develop and maintain a network of work with colleagues, colleagues within the wider research institute and community; able to increase learning capacity independently; able to document, store, secure, and rediscover research data in order to guarantee validity and prevent plagiarism. For this reason, it is necessary to conduct research on the impact of creative and innovative learning management in order to meet the achievement of the competence of graduates of the master program. This study focused on Sarjanawiyata Tamansiswa University graduate students in Education Management study program.

Literature Review
Learning Management

International Seminar on Education Management
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Saturday, 27th October 2018

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Management is the process of working together between individuals and groups as well as other resources in achieving goals. Organization is an activity of management (Syafaruddin, 2005: 41). Managerial activity is only found in the container of organizations, both business organizations, schools and others. Management can be seen as an open system that interacts with its environment in the process of converting input or input resources into outputs or outputs of products (goods and services). The input environment is the most important aspect of an open system. This environment is the place of origin of the resource as well as customer feedback, which has an impact on the organization's output. Feedback in the environment provides input for the organization that meets the needs of the community at large. Without the desire of consumers to use organizational products, it is very difficult for an organization to operate or survive in its business field in the long run (Priyono, 2007: 20).

Kurniadin and Machali (2012: 117), explained that education management is a series of processes consisting of planning, organizing, mobilizing, and supervising that are associated with the world of education. The strategy for improving quality management in education is a unified plan that is designed sustainably by educational institutions (schools) with the aim of improving the management of educational institutions (schools) more effectively, efficiently and equitably to realize quality or excellence (Septi, 2012: 446).

Bell & Bridgman (2017) argue that "Knowledge is created in Management Learning through what Boyer (1990) refers to as" scholarship of integration ". This involves making connections across disciplines and presenting ideas in ways that are intelligible by non-specialists as well as scholars. Based on this opinion means that knowledge is made in Learning Management through what Boyer (1990) calls an 'integration scholarship' which involves making cross-disciplinary connections and presenting ideas in ways that can be understood by non-specialists and scientists. In the implementation of learning management, the teacher has a strategic and important role in managing the learning to be carried out (Sanjaya, 2008: 198).

The objectives and benefits of education management are as follows (1) The problem is the quality of education; (2) the availability of education personnel with theories about the process and tasks of educational administration; (3) the achievement of educational goals effectively and efficiently; (4) fulfillment of one of the four competencies of educators and education staff; (5) the creation of students who actively develop their potential to have religious spiritual strength, self-control, personality, intelligence, noble character, and skills needed by themselves, society, nation and state; (6) the realization of a learning atmosphere and an active, innovative, creative, effective and fun learning process (Fattah, 2012: 123).

Kolodziejczyk (2015) argues that "management functions such as planning, budgeting, supervising quality performance or coordinating team meetings". This means

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Sunarto & Didi Supriadi

that management functions are like planning, budgeting, monitoring the quality of performance or coordination team meetings. According to Tadjudin (2013) that among several management functions, supervision has an important role. If monitoring activities as a form of control are carried out effectively, it will guarantee that the objectives set by the organization will be achieved.

Choir (2016: 46) states that education management is also a form of evidence that management science and technology develops in the mind (mind) of humans which is strengthened by the ability to think (the knower) of all phenomena obtained from individual experience and reasoning ability (the knowing) in providing arguments or explanations of phenomena obtained from the experience of the human being concerned.

Learning Model

The learning model is a systematic procedure or pattern that is used as a guide to achieving the learning objectives within which there are strategies, techniques, methods, materials, media and learning assessment tools (Afandi, et al., 2013). Learning model is a plan or pattern that is used as a guide in planning learning in the classroom or tutorial learning. The learning model refers to the learning approach that will be used, including the teaching objectives, the stages in learning activities, the learning environment, and classroom management (Trianto, 2010). The learning model is a conceptual framework that describes systematic steps to manage learning, so that it can achieve the learning goals or objectives and can be used by teachers as guidelines in designing and implementing effective learning (Suryaman, 2004).

There are two learning models in universities, namely Teacher Centered Learning (TCL) and Student Centered Learning (SCL) (Kurdi, 2009: 108). Learning models in universities change from Teacher Centered Learning (TCL) to Student Centered Learning (SCL). The first factor that supports changes in learning models in universities is due to changes globally. Tight competition is followed by changes in the orientation of educational institutions, namely changes in work requirements. The second factor is because of the increasingly complex problems that need to be prepared by graduates who have abilities outside their field of study. The third factor is due to rapid changes in all areas of life so that generic abilities are needed.

Creative and Innovative Learning

Creativity has been associated with: curiosity; willingness to get involved and explore; be proactive; willing to take risks, have determination and even obsession. Various learning dispositions or habits of cognitive creativity have been identified in people involved in creative actions including: focusing on pattern recognition; the

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Universitas Sarjanawiyata Tamansiswa - Indonesia
Saturday, 27ᵗʰ October 2018

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creation of mental models; Find analogies / metaphors to represent ideas; has the ability to traverse domains; explore alternatives; and has smooth thinking (Smith, Nerantzi, & Middleton, 2014).

Budiwati (2010) explained that creative and productive learning based on Cognitive Learning Theory, with the characters: Piaget, Bruner and Ausubel. The three figures of Cognitive Theory together emphasize the importance of actively engaging students in learning. According to Piaget, only by activating students optimally, the process of assimilation and accommodation of knowledge and experience can occur well. *"Creative learning is hence any learning which requires understanding, invention, making new connections, seeing things in a different perspective. .... Innovation is the 'implementation' (OECD, 2005) or the 'intentional introduction and application' (West & Richards, 1999) of a novelty which aims to ameliorate a particular situation"*. (Ferrari, et al., 2009). Based on this opinion creative learning is learning that requires understanding, discovery, making new connections, seeing things in a different perspective. While Innovation is the implementation or intentional introduction and application of new things that aim to improve certain situations.

Competencies of Masters Graduates

According to the Indonesian National Qualification Framework (KKNI), universities that are graduates of the master program are required to have skills, namely: (1) able to develop logical thinking, critical, systematic, and creative through scientific research, creation of designs or works of art in the field of science and technology that pay attention and apply the value of humanities in accordance with their fields of expertise, compile scientific conceptions and study results based on rules, procedures and scientific ethics in the form of theses, and publish articles in nationally accredited scientific journals and obtain international recognition in the form of scientific presentations or equivalent; (2) able to carry out academic validation or study according to the area of expertise in solving problems in the relevant community or industry through the development of knowledge and expertise; (3) able to compile ideas, ideas, and scientific arguments responsibly and based on academic ethics, and communicate them through the media to the academic community and the wider community; (4) able to identify scientific fields that are the object of their research and position them into a research map developed through interdisciplinary or multidisciplinary approaches; (5) able to make decisions in the context of solving the problems of developing science and technology that pay attention to and apply the value of humanities based on analytical or experimental studies of information and data; (6) able to manage, develop and maintain networks of work with colleagues, colleagues in the wider research institutions and communities; (7) able to increase the capacity of learning independently; and (8) able to document, store, secure, and rediscover research data in order to ensure validity and prevent plagiarism.

International Seminar on Education Management
Quality Improvement in Curriculum Development
Universitas Sarjanawiyata Tamansiswa - Indonesia
Saturday, 27th October 2018

ISBN   978-602-53231-1-9   Sunarto & Didi Supriadi

Methodology

This research is generally a research that aims to develop a creative learning management model. The research method used is the Research and Development (R & D) method. This research will be carried out in the Education Management Study Program of the Postgraduate Education Directorate of Sarjanawiyata Tamansiswa University. The study was conducted in March 2018. The subjects of this study were students of the Education Management Study Program, Graduate School of Education, Sarjanawiyata Tamansiswa University. The object of learning is the subject of the philosophy of science in the Education Management Study Program, the Postgraduate Education Directorate, Sarjanawiyata Tamansiswa University.

The procedure for developing learning management design uses the modified R & D model from Gall, Gall & Brog which has 6 stages
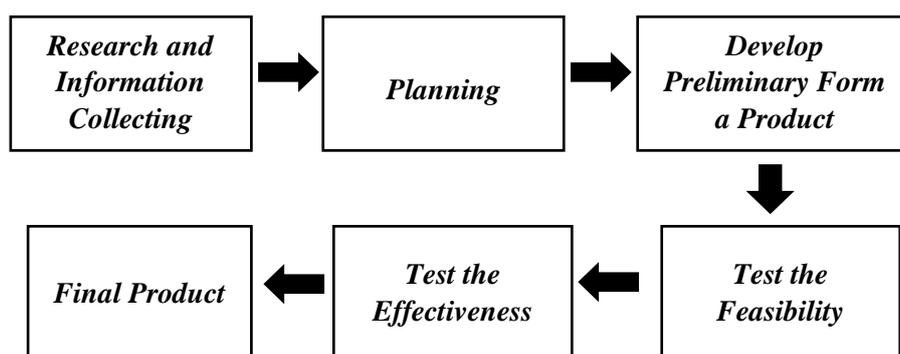

Figure 1. Modification of R & D Stage by Gall, Gall & Borg

Data collection techniques in this study used observation and FGD (Focus Group Discussion). The data analysis technique used in this study is quantitative descriptive analysis.

The development of the learning management model using the 6 stages of the R & D model from Gall, Gall & Borg are as follows.
1. Research and development that includes needs analysis and literature study.
2. Planning is to compile a research plan, including the capabilities needed in the implementation of research, the formulation of the objectives to be achieved, and the design or research steps.
3. Development of product draft. Development of learning materials, learning processes, and evaluation instruments.

4. Initial field trial. Field trials in one class. During the trial, observations, interviews and circulation of questionnaires were conducted.
5. The effectiveness test is carried out on classes that are different from the trial class.
6. At this stage, the product has been validated by experts, feasibility and effectiveness. The product is in the form of a creative and innovative learning management model
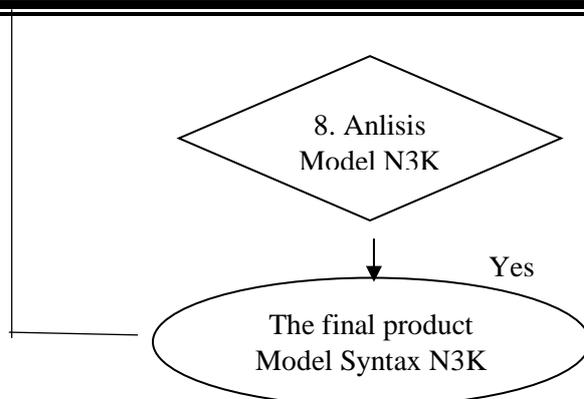
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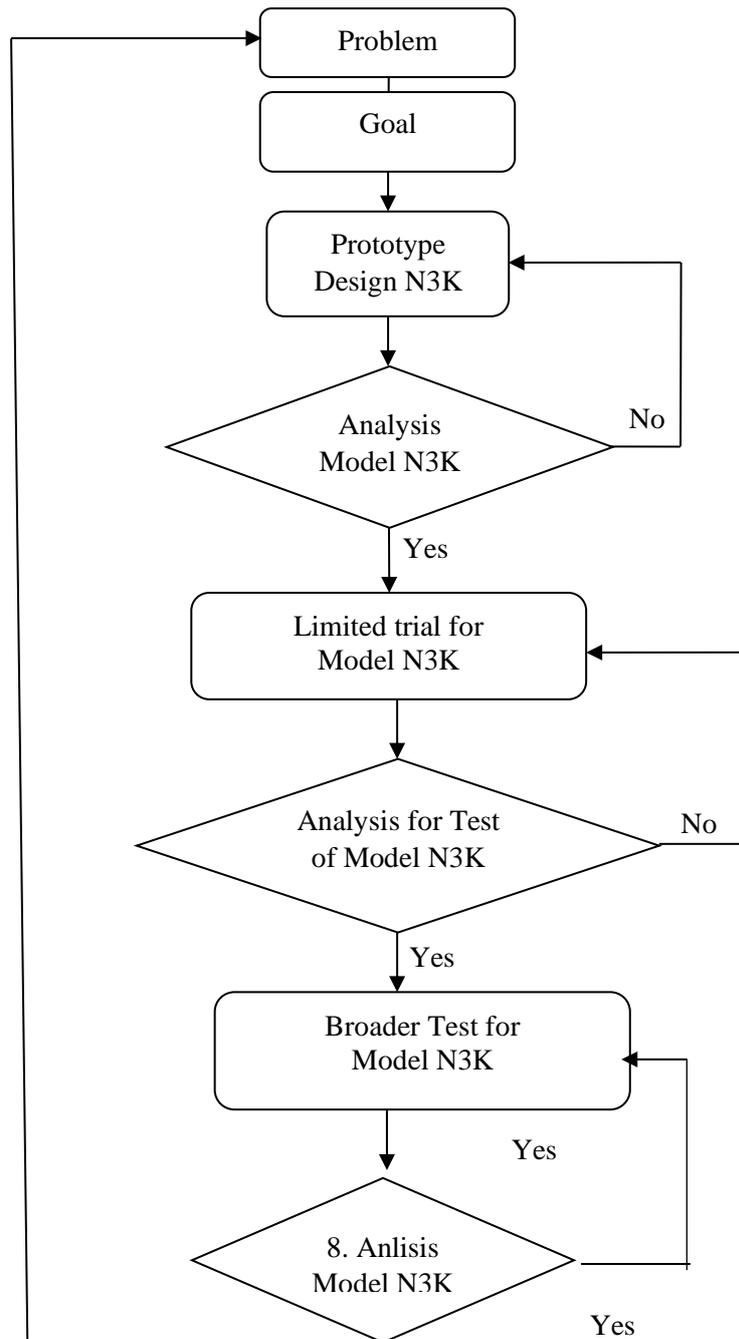
Figure 2: Flow Chart for N3K Model Development

Findings and Discussion

The design of learning management N3K-based is formulated in the syntax as follows.

Table 1. Syntax of Learning Management N3K-Based

PAMONG	Student Learning N3K-Based (Niteni, Nirokke, Nambahi, Kreatif) MAIN CONTENTS OF LEARNING: …………………………………………............		
Pamong Do	**Learning Model of N3**	**Activity of Creative Learning**	**Goal**
1. Information, question and answer, and discussion.	1. Niteni Used student worksheets	1. Provide ideas or proposals for a problem; 2. Responding to friends' opinions; 3. Asking questions;	Students become creative
2. Preparing Student Worksheets and students in groups (3 people).	2. Nirokke Used student worksheets	4. Has an alternative in solving problems; 5. Can answer questions properly; 6. Discuss the things that are known and which he does not know;	
3. Guiding and facilitating student-centered learning	3. Nambahi Used student worksheets	7. Students' notes made in their own style; 8. Write the results of group work neatly and correctly; 9. Smoothly express ideas verbally and in writing 10. Complete and neat in describing the results of group work	

Table 2 shows that students' learning creativity using N3K-based learning models (Niteni, Nirokke, Nambahi, and Kreatif) has increased from the beginning of learning up

to the third cycle. The assessment of student learning creativity has ten research indicators, including: giving ideas or proposals to a problem, responding to the opinion of friends, asking questions, having alternatives in solving problems, being able to answer questions properly, discussing things that are known and unknown , the students' notes are made in their own language, writing the results of group work neatly and correctly, smoothly expressing verbally and in writing, complete and neat in describing the results of group work.

Table 2. The Level of Creativity Used Learning Management N3K-Based

No	Activity of Creative Learning	N3K Based				Non N3K Based			
		Initial	I	II	III	Initial	I	II	III
1	Ideas or proposals for a problem;	52.38	57.14	71.43	90.48	52.38	57.14	66.67	61.90
2	Responding to friends' opinions;	52.38	61.90	66.67	90.48	52.38	61.90	61.90	76.19
3	Asking questions;	47.62	71.43	71.43	80.95	42.86	52.38	66.67	71.43
4	Has an alternative in solving problems;	57.14	71.43	85.71	95.24	57.14	66.67	66.67	76.19
5	Can answer questions properly;	57.14	71.43	80.95	95.24	57.14	57.14	71.43	76.19
6	Discuss the things that are known and which he does not know;	61.90	61.90	80.95	90.48	61.90	52.38	71.43	66.67
7	Students' notes made in their own style;	61.90	85.71	90.48	95.24	61.90	85.71	90.48	80.95
8	Write the results of group work neatly and correctly;	57.14	66.67	80.95	90.48	57.14	66.67	71.43	76.19
9	Smoothly express ideas verbally and in writing	66.67	76.19	85.71	95.24	66.67	61.90	80.95	66.67
10	Complete and neat in describing the results of group work	66.67	80.95	90.48	90.48	61.90	66.67	76.19	66.67
	Average	58.10	70.48	80.48	91.43	57.14	62.86	72.38	71.90
	Category	Poor	Moderate	Moderate	Creative	Poor	Moderate	Moderate	Moderate
	Repeated Measured Test	F = 46.26 (P<0.05)				F = 15.88 (P<0.05)			

In the initial cycle the N3K-based learning model has an average value of 58.10. This value is included in the "Poor" category. This shows that at the beginning of the study of student learning models in the Education Management Study Program, the

International Seminar on Education Management
Quality Improvement in Curriculum Development
Universitas Sarjanawiyata Tamansiswa - Indonesia
Saturday, 27th October 2018

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Postgraduate Education Directorate of the University of Sarjanawiyata Tamansiswa was less creative. In the first cycle after doing the N3K-based learning model has an average value of 70.48. This value is included in the category "Moderate". In the first cycle shows that there has been an increase in the creative level of students after doing the N3K learning model. This shows that the N3K learning model is able to improve the creative students in the Education Management Study Program at the Graduate School of Education, Sarjanawiyata Tamansiswa University, but to find out whether the increase is effective or not, an experiment was conducted in cycle II.

In the second cycle it is known that the average score of the N3K-based learning model is 80.48 and is included in the "Moderate" category. Judging from the average value from cycle I to cycle II there has been a creative increase in students, but both cycles are still equally included in the category "Enough". For this reason, the third cycle is conducted to find out more about the creative abilities of students in the environment in the Education Management Study Program, Graduate Education Directorate, Sarjanawiyata Tamansiswa University. In cycle III it is known that the average score of student creativity is 91.43 and is included in the category "Creative". This value shows that students in the environment in the Education Management Study Program of the Postgraduate Education Directorate of the University of Sarjanawiyata Tamansiswa have high learning creativity. In other words, it can be concluded that the N3K-based learning model was successfully applied in the environment in the Education Management Study Program, Postgraduate Education Directorate, Sarjanawiyata Tamansiswa University.

The level of creativity of students who do not use N3K-based learning models in the initial cycle has an average value of 57.14 (Figure 3.). This value is included in the "Poor" category. This shows that at the beginning of the study of student learning models in the Education Management Study Program, the Postgraduate Education Directorate of the University of Sarjanawiyata Tamansiswa was less creative. In cycle I non-N3K-based learning models have an average value of 62.86. This value is included in the category "Enough". This shows that in the first cycle there was no increase compared to the initial cycle of research. In the second cycle non learning model obtained an average value of 72.38, the value included in the category "Moderate". On average, the first cycle with the second cycle of non N3K learning models has increased, but in both categories are still in the category "Moderate". In the third cycle, the average value of non N3K learning model is 71.90, the value is included in the category "Moderate". Based on the average value of cycle II and cycle III it can be seen that there is a decrease in the average value of the two cycles. This shows that the non-learning model in the Education Management Study Program at the Postgraduate Education Directorate of Sarjanawiyata Tamansiswa University cannot improve student creativity.

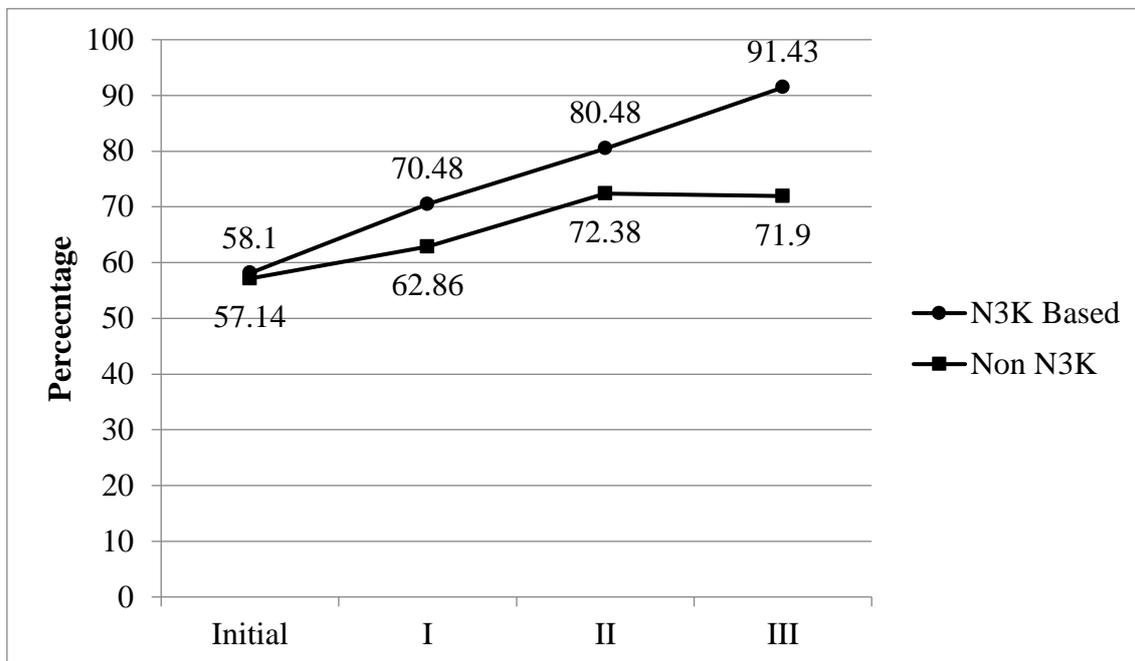   Sunarto & Didi Supriadi

Figure 3. The Average of Level of Creativity Used Learning Management N3K-Based

To find out the difference in the increase in student creativity using the N3K learning model with non N3K learning models, an independent t test was carried out, and the following results were obtained.

Table 3. Independent Sample t-Test for Learning Management N3K-Based

Model	Increased	t	Sig.
N3K Based	33.33%	3.176	0.005
Non N3K Based	14.76%		

Based on the analysis of independent test samples obtained t value of 3.176 with a significance of 0.005. Because of the significance value <0.05, it can be concluded that there is a significant difference in the level of creativity between N3K learning models and non N3K learning models. The level of creativity of N3K learning models is higher than that of non N3K learning models. The average increase in the level of non-N3K learning model creativity was 14.76%, while the average increase in the level of creativity of the N3K learning model was 33.33%.

Based on the graphic image in Figure 3, it can be seen that the N3K learning model has a higher value than the non N3K learning model. This shows that the N3K learning

International Seminar on Education Management
Quality Improvement in Curriculum Development
Universitas Sarjanawiyata Tamansiswa - Indonesia
Saturday, 27ᵗʰ October 2018

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Sunarto & Didi Supriadi

model was successfully applied in the Education Management Study Program at the Graduate School of Education, Sarjanawiyata Tamansiswa University. The high creativity of students after doing the N3K learning model is shown by the ability of students to provide ideas or proposals for a problem. In addition, students are also better able to respond to the opinions of friends, and want to ask questions when there is material they do not understand. Students also have alternatives in solving problems, and can answer questions given by friends and lecturers well, students also want to discuss things that are known or unknown. Another assessment indicator is that students can make notes with their own language, they can also write the results of group work neatly and correctly. Students are also able to express ideas both orally and in writing, and are able to explain the results of group work in a complete and neat way.

Conclusion

This study has succeeded in creating syntax of learning management models N3K-based (Niteni, Nirokke, Nambahi; and Creative). The N3K learning model has been successfully implemented in the Education Management Study Program at the Graduate School of Education, Sarjanawiyata Tamansiswa University. These results are indicated by an increase in each cycle after the N3K learning model. In the initial cycle the N3K learning model had an average achievement of 58.10%, in the first cycle had an average achievement of 70.48%, in the second cycle had an average achievement of 80.48%, and in the third cycle had an average achievement of 91.43 %.

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