

Research Article

## PROBLEM POSING CREATIVITY IN THE "WHAT-IF-NOT" (WIN) STRATEGY

*Khutobah<sup>1</sup>, Nanik Yuliati<sup>2</sup>, Deditianti Tri Indriati<sup>3</sup>, Saddam Hussien<sup>4</sup>*

<sup>1</sup>Early childhood Education. Departement. University of Jember, Indonesia

<sup>2</sup>Early childhood Education. Departement. University of Jember, Indonesia

<sup>3</sup>Non formal Education. Departement. University of Jember, Indonesia

<sup>4</sup>Mathematics Education. Departement. University of Jember, Indonesia

**Abstract:** The objective of this study is to describe the creativity problem posing in using "What-If-Not" (WIN) strategy of student university. This research was conducted in university of jember indonesia. Subjects of this study consisted of 3 students university of teaching and education faculty, early chilhood education department 6th semester of academic year 2017/2018. We choose Subject based on ability of learning. This study used a qualitative approach. To achieve the purpose of the study, researcher gave tests and conducted interviews to the subjects of the research. The test consists of 1 problem on classroom management issues. The test results were analyzed in accordance with the creativity indicator used in this research that is fluency, flexibility and originality. In this study fluency is based on the number of questions raised. Flexibility is based on the diversity of each question posed. Originality is based on the presence or absence of questions raised by one student but not by another student. The result of the study showed that the creativity problem posing in using WIN strategy is still in medium category.

**Keywords:** Problem posing creativity; fluency; flexibility; originality; "What-If-Not" strategy.

### I. INTRODUCTION

Creativity is a child's thinking process that must grow and develop. This is in accordance with the opinion of Craft (2000) and Mann (2005) that creativity is an important thing that developed in the world of education. Because through the creativity of children will be able to solve various problems, able to generate new ideas, generate new things, able to create new combinations of things that exist and bring a sense of comfort in the face of problems.

Creativity can't grow and develop itself, but it is determined by various elements. The ability of individuals and the environment greatly influences the development of one's creativity. That's why both the individual and the child's environment, should provide an opportunity for the development of creativity. One of the environment that is able to do this is the school / campus environment through learning activities. School as one of the environment must be able to give opportunity and stimulation to the students to give creative thinking.

In general, creativity was had by every student (Lee, 2005; Leikin, 2009; Pelezer & Rodriguez, 2011). However, creativity will not develop if the learning strategies and learning problems do not provide opportunities for students to come up with their ideas.

Creativity can be represented in various forms such as creativity in determining problem-solving strategies, determining solutions of open ended problems, in making or asking questions, etc. It is also said by Olatoye, Akintunde, & Ogunsanya (2010) that creativity can be defined as the

ability to create or bring something new, whether new solutions to a problem, new methods, devices, art objects or new objects.

One of the abilities that must be has by students in addition to being able to answer questions. They also compile questions. The statement was supported by Silver & CAI (1996) and Singer, Ellerton & CAI (2013) who stated that the posing problem has an important place in learning. Both of which require creativity. Creativity will be able to make children ask questions that are weighty because creative children always want to know and solve their problems with maximum results. Creative children will have the possibility of writing questions in quantity, variety and uniqueness. Even thought problem posing, enables students to learn independently, train students to think flexibly, critically and creatively. Besides the results of research Akay & Boz (2009) said that the problem posing will foster a positive attitude so that student interest in learning to be greater.

Mishra & Iyer (Mishra & Iyer, 2015) said that Problem posing is the filing of problems or questions by students based on a particular situation. Creativity of problem posing is the ability to compose and propose new problems based on the situation or information available. When students do their problem posing as the perceptions and interpretations of their concrete situations so that the creativity of every individual will appear in accordance with their perceptions and interpretations.

Based on the observation of the researcher, asking questions related to class management found that there are students who

show excellent ability, there are students who show good ability, and there are students who have enough ability. In raising the problem of course there are students who have difficulty. Student difficulties in asking one of questions related to use strategy or way to ask questions, other than that when want to raise the question, the question has been submitted by other students, in other words the question raised is not variety. So it takes strategy and creativity to ask a variety of new questions.

There are several strategies that can be applied in problem posing, one of it is the "What-If-Not" strategy. Seo&Sook (1998) states that the "What-If-Not" strategy is central to the problem posing. Lavi&Shriki (2007) states that this Strategy is based on the idea of modifying from attributes of problem, so that it can resulting in problems that can ultimately lead to some interesting investigations. Brown & Walter (2005: 74) says the "What-If-Not" strategy consists of several steps: choosing a starting point, listing attributes, "What-If-Not?", Problem posing, analyzing the problem. The "What-If-Not" strategy is very useful for developing new tasks in learning (Lednicky, 2015). Shriki (2013) also argues that the implementation of the "What-If-Not" strategy in problem posing can enhance creativity. Through the implementation of the "What-If-Not" strategy in the problem posing students can be trained and accustomed to construct their understanding, designing questions and completing the self-designed by students so that it is expected to play a role in improving student creativity.

The creative component consists of fluency, flexibility, originality (Silver, 1994). In this research, the creativity of problem posing in applying the "What-If-Not" strategy will be studied / analyzed based on these components. In this study, fluency is based on the number of questions raised at the level. Students are said to be fluent when asking about > 9. While Flexibility is based on every problem posed by the student is different. The difference in this study is the problem does not have the same purpose. While originality refers to the unusual questions posed by most questions raised by other students. Unusual in question is at least one problem that is not proposed by other students. Based on the description that has been put forward, it is important to describe the creation of a student posing problems in implementing the "What-If-Not" strategy. Therefore, the question in this research is how the creativity of students posing problem related to class management problem by applying the strategy of "What-If-Not"?

**II. Research method**

The type of this research is descriptive research with the qualitative approach. The main purpose of the descriptive research is provide an accurate picture or description status or characteristics of the situation or phenomenon (Johnson & Christensen 2004). This research was conducted in early childhood education (PAUD) program of the faculty teacher training and education university of jember. The subject of this research is 3 students in 6 semester who are taking the course in class management.

The procedures of this research are: pre-field stage; Stage of field work; Stage of analysis data. The activities undertaken by the pre-field stage are the preparation of research instruments. This activities undertaken at the stage of field work is provide a test of creativity problem posing in applying the strategy "What-If-Not" to the subject. While at the stage of data analysis activities is to analyze the test of results and interviews.

The main instrument in this research is the researchers themselves. Whereas the supporting instrument is the test of creativity problem posing, and the rubric of assessment test. The test of creativity problems posing in class management materials. The test asks students questions based on the given situation or picture. In the scoring rubric, the score set by the researcher is adjusted to the indicator of creativity, so that the results of the student's work can to knowing the creativity of the students.

The result of subject work is classified based on creativity level as in table 2.1.

Table 2.1 Classification of Student Creativity Level

Level	Characteristics of the creativity level
Level 4 (very creative)	The proposed of question meets aspects of fluency, flexibility, and originality
Level 3 (creative)	The proposed of question meets aspects of fluency and originality or flexibility and originality
Level 2 (creative enough)	The proposed of question meets the flexibility aspect.
Level 1 (not creative)	The proposed of question meets the fluency aspect

**III. Result and Discussion**

The researcher gives sufficient time to the students to do problem posing by applying the "What-If-Not" strategy. The implementation of the "What-If-Not" strategy consists of several stages starting from level 0 to level 4. Level 0 determines the starting point, level 1 lists the known information (listing attributes), level 2 "What-if-not?", Level 3 problem posing, level 4 answer the question being asked (analyzing the problem). The researcher gave 30 minutes. This is the opinion of Ma (2008) and Bruce (2007) by providing time to students to help students ask questions with higher levels, and greater student confidence. The test consists only 1 item that contains information. The information is:

"In learning we can not ignore classroom management, because a conducive class will be able to create a fun learning environment. Reality in the learning process often appears the disturbances that cause the problems of class management. These events must be addressed by effective classroom management approaches. Determine the right strategy to solve the problem! "

In general, the implementation of the "What-If-Not" strategy undertaken by students at level 0 is able to capture and understand the information well so that the student can determine the starting point in the initial step of the "What-If-Not" (WIN) strategy. The next step is using the WIN strategy

is level 1 which listing attributes, where at this stage students observe what is given and look for important data from the starting point and the information provided. At this stage student 1 raises 4 important information from the given information. 4 information is 1) impaired learning, 2) non-conductive children, 3) completion, 4) classroom management approach. Listing attributes done by students 2 are 1) problem of class management problem, 2) source of class management problems, 3) approach of class management, 4) class management procedure. The attributes of the students are 3, 1) classroom management issues, 2) sources of classroom management issues, 3) factors of classroom management issues, 4) a classroom management approach that can be used.

At this stage all students apply for attributes listings as much as 4. students 1 register more contextual information while 2 and 3 students are more theoretical. In the next stage that is level 2 all the students register some alternative data. In general, students register several alternatives of the same data, only Student 1 has differences with other students that are registered data related to "class management goals".

In the next stage of the WIN strategy is Level 2, What-If-Not? Where at this stage the student selects one or more data that has been in the list and asks "What if not this attribute?" And lists some alternative data. At this stage student 1 is able to develop and register alternative questions that he submitted based on the information provided as many as 7 ideas. These 7 ideas include 1) class management objectives, 2) individual problems, 3) group problems, 4) preventive, 5) curative, 6) traditional approach, 7) modern approach. The 2nd student at this stage was able to develop and list the alternative questions to submitted based on the information provided by 9 ideas. 9 ideas cover 1) individual problems, 2) group problems, 3) teachers, 4) students, 5) the environment, 6) traditional, 7) modern, 8) preventive, 9) curative. While at the third student at this stage able to develop and register alternative questions that he submitted based on the information provided as many as 7 ideas. 7 ideas cover 1) individual problems, 2) group problems, 3) teachers, 4) traditional, 5) modern, 6) preventive, 7) curative.

The next stage level 3 is the posing problem, where at this stage students choose attributes and ask questions or problems. At this stage student 1 is able to ask 13 questions based on attributes or level 2 that he lists. The questions are: 1) why need classroom management in learning ?, 2) give examples of individual classroom management problems or groups ?, 3) why are there problems with class management issues ?, 4) what should teachers do to make learning stay conducive? 5) explain the source of class management problems, 6) explain the source of class management problems !, 7) how is the solution ?, 8) explain the nature of classroom management procedures both preventive and curative, 9) give examples of management procedures Preventative and curative classes, 10) whether the authoritarian approach is applicable in early childhood, 11) what approach is best suited to early childhood, 12) when choosing one approach, what teachers consider, 13) if there are parents who accompany the child in the class and

participate in regulating the course of the learning process, what should the teacher do ?. The 2nd student at this stage is able to ask 12 questions. The questions are; 1) why classroom management issues arise ?, 2) give examples of classroom management problems, along with solutions!, 3) explain the source of classroom management issues 4) what teachers should do to avoid being the source of management problems Class ?, 5) why teachers can be the source of the problem? Do the fact-based analysis !, 6) what measures should be appropriate to teachers who are often the source of classroom management problems ?, 7) explain some classroom management approaches ! 8) Which is effectively done in paid ?, 9) What approach of intimidation is worth using in paid ?, 10) explain the nature of classroom management procedures !, 11) explain the differences of preventative and curative classroom management procedures, 12) when we use management procedures A preventive or curative class. The 3rd student at this stage is able to ask 12 questions. The questions are; 1) explain individual problems, 2) explain group problems, 3) give examples of individual problems, 4) give examples of group problems, 5) how to solve individual problems, what should teachers do? 6) what is the same as doing to solve individual and group problems ?, 7) explain the types of classroom management approaches; 8) give examples (3) classroom management approaches; 9) clear the nature of classroom management procedures (preventive and curative), 10) Give examples of classroom management procedures (preventive and curative), 11) if the source of class management problems, what should teachers do ?, 12) why learning in early childhood often begins with singing ?. The last stage of WIN strategy is level 4 that is analyzing the problem, where at this stage the student analyze and try to answer the question posed.

The results of the tests submitted by students, then analyzed based on the indicator of creativity problem posing the fluency, flexibility, and originality. Fluency refers to the number of questions asked, flexibility refers to many diverse questions, whereas originality refers to questions that are not identical to the questions raised by other students. Subject has good creativity. The average of each student in asking questions by using the WIN strategy is 12 questions. Judging from the fluency indicator, student 1 on level 3 posed 13 questions. In terms of student flexibility indicator 1 question that he proposed are all varied, viewed from the indicator of originality student 1 proposed 3 unusual questions asked from most questions posed by other students. 3 questions are; 1) Is the authoritarian approach applicable in early childhood ?, 5) Is the modern approach most suitable to be applied in early childhood ?, 6) If there are parents who accompany the child to enter the class and even manage the course of the learning process what should be done teacher ?. Based on the three indicators, student 1 meets aspects of fluency, flexibility, and originality. Judging from the classification of creativity level 1 students enter in level 4 (very creative).

The next stage researchers conducted interviews on the subject of research. Based on student interview 1, he felt challenged

and interested in answering creativity tests. This is because in general the students only answer questions given by the teacher. He feels excited because the creativity test provides an opportunity to pose a new experience. This is in accordance with the opinion of Susanto (2015) which states that highly creative students have the attitude and feelings of curiosity and feel challenged by something new. Student 1 is not afraid of being wrong or not afraid being able to answer the question he asked, besides the student 1 dare to expend and develop his ideas. This is consistent with Chin's (2002) opinion that students will feel comfortable in asking questions when students are not afraid of criticism, criticism or insults and when questions that students ask are valued no matter how bad the question is asked.

The result of the creativity test of student posing problem 2 is viewed from the fluency indicator, at level 3 asking 12 questions. In terms of the flexibility indicator of student 2 questions that he proposed are all varied, in terms of indicators of originality of students 2 proposed 3 unusual questions posed from most questions raised by other students. The questions are 1) What should be done by the teacher so as not to be the source of the problem of class management ?, 2) do the analysis based on the facts that exist, 3) What sort of intimidation is feasible to use in early childhood, Based on these three indicators then student 1 meets aspects of fluency, Flexibility, and originality. Judging from the classification of creativity level 1 students enter in level 4 (very creative).

Result of interview to student 2, student 2 stated that doing problem he feel challenged. But less time is given. He has ideas that he wants to propose but the time has passed. This is accordance with the opinion of Kandemir & Gur (2007) which states that time is one of the important factors in creativity. The subjects felt that the researcher did not give them enough time to think. This is in Bruce's opinion (2007) if students are not given enough time then can not help students to ask quality questions. In addition, student 2 states that not giving extra time in asking questions also makes his creativity ideas hampered and not fully contained. This is in the opinion of Kaur, Singh, & Hashim (2014) that giving a few minutes to students is important in learning, because when the teacher does not give enough time then the students can not think and ask questions well. In addition Ma (2008) and Bruce(2007) that teachers who provide some time to students can help students to ask questions with a higher level, and greater student confidence.

Result of analysis of creativity test of student problem posing 3 from fluency indicator, level 3 ask 12 questions. In terms of flexibility indicator of student questions 3 that he proposed are all diverse, in terms of indicators of originality students 3 filed 1 question that is not identical with the question posed by other students. That question is why learning in early childhood often begins to sing ?. Based on the three indicators, student 1 meets aspects of fluency, flexibility, and originality. Judging from the classification of creativity level 1 students enter in level 4 (very creative).

Results of interviews on Student 3, although student 3 entered in the level of highly creative, but the subject of research still has a sense of worry to answering the test. This is because the 3 students are afraid that the questions raised are correct or not. Silver (1994) states that some students will refuse or do not want to ask questions because the student is afraid of not being able to answer the question and the teacher will claim to be stupid or wrong. This is an obstacle to the emergence of creativity of research subjects. This statement is consistent with that of Lee (2005) and Olatoye, Akintunde & Ogunsanya (2010) which states that taking risks is one of the factors affecting a person's level of creativity. Students who dare to take risks will be more daring to bring up his ideas. He will not be too concerned about whether his ideas are wrong or true, or they will be mocked or praised.

Based on the results of the analysis and interviews on the subject of research, it can be concluded that the implementation of WIN strategy in the problem posing very effective in raising and increasing creativity. This is consistent with the results of the Haghverdi&Gholami (2015) study indicating that the "What-If-Not" strategy is very effective in the emergence of creative questioning ideas. In addition, using the "What-If-Not" strategy leads to the question asked by the student as well as more flexibility by changing the information or data on the original problem. This is supported by Silver (1997) that the "What-If-Not" strategy is one of the strategies that can help students in asking a variety of questions (flexibility). Flexibility is one of the important things in the creativity component. It was supported by Runco (2001) that flexibility is an important aspect of fluency and originality, because it is an important aspect of divergent thinking, fluency and originality will be fulfilled if good flexibility. In the flexibility category the questions raised by students are generally diverse. Students ask questions by changing the information provided.

#### **IV. Conclusion**

Based on the above description it can be concluded that the implementation of the strategy "What-If-Not" is an effective strategy to improve the creativity of problem posing. The strategy helps students to ask more fluent and flexible questions, so that the question posed by the student may allow the question to be an unusual question asked by another student

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