ENHANCING THE PRE-SERVICE ENGLISH TEACHERS' CRITICAL THINKING THROUGH QASEE LEARNING MODEL

Masni Usman
Universitas Ahmad Dahlan, Yogyakarta
masniusman09@gmail.com

Abstract: The current dynamics of the role of English at national and international levels need to be taken into substantial consideration in enhancing the pre-service English teachers' critical thinking skills. Some research has been conducted about the critical thinking skill especially in the Indonesian context, but the result still indicated that the critical thinking skills were still not fully empowered by the teacher education programs in Indonesia. Unfortunately, there is still a lack of research related to the strategies for developing the pre-service English teachers' critical thinking in Indonesia. So, in this present study, the writer will adapt a new learning model called QASEE learning model as a teaching technique that can be used to enhance the pre-service English teachers' critical thinking. This study is classified as an experimental study. There were 72 participants from pre-service English teachers. The participants were divided into two classes, experimental class (QASEE class) and control class. The writer collected the data through pre-test and post-test. The data were analyzed by using paired sample t-test through SPSS program. The result has shown that the mean score before the treatment was 64.40 and after the treatment was 75.95 which means there were significant differences before and after being taught by using QASEE learning model on the pre-service English teachers' critical thinking skills. Thus, in this research, the writer concluded that the QASEE learning model can be used as one of the alternative teaching techniques to enhance the pre-service English teachers' critical thinking skills.

Keywords: Pre-service English teachers, Critical thinking skill, QASEE learning model

INTRODUCTION

As already known, the current dynamics of the role of English at national and international levels needs to be taken into substantial consideration in enhancing the pre-service English teachers' critical thinking skills. Critical thinking is widely cherished as one of the important skills that need to be enhanced especially for pre-service English teachers in this 21st-century era. Today the ability to think critically is very important in everyday life because to develop other thinking skills, such as the ability to make decisions and solve problems. There are a lot of phenomena in everyday life that need to be criticized. Critical thinking is indispensable in real life, especially in education. Understanding critical thinking in education is the process of thinking to decide various foundations such as evidence, methods, criteria, context, conceptualization, and relevant sources of information.

In educational studies especially in ELT, term critical thinking usually defined as a set of cognitive skills such as the ability to analyze, synthesize, and evaluate the information or knowledge(Heard et al., 2020.). In addition, critical thinking is associated with cognitive thinking skills such as logical thinking, problem-solving, and intellectual autonomy such as having ideas, having good reasons to support the ideas, etc. (Chen, 2017). So, it can be concluded that critical thinking skill is a high-order thinking skill that requires people to think

about their own thinking including the cognitive activities by considering the logical and objective aspects to deal with real problem and obtain a reliable conclusion. Critical thinking became one of the important skills that should be mastered not only by the student including the pre-service English teacher. It has been proven that for those who have a good critical thinking skill are good problem-solver, decision-maker and long-life learner (Marin & Halpern, 2011).

Critical thinking skills are important to be developed and mastered by the pre-service teacher. A research has shown that critical thinking skills are essential in the process of decision making because it can reduce the risk of failure and contributes to the workers' self-regulation (Penkauskiene, Railiene, & Cruz, 2019). Another research also shown that critical thinking skills have a more significant effect on decision-making related to real-world problems rather than intelligence factors. Thus, it can be seen that how critical thinking skills is essential in this 21st century era. Critical thinking skill is important to be mastered by students including the pre-service teacher. Unfortunately, there were some researches that show how the critical thinking skill on pre-service teachers in Indonesia is still low and undeveloped (As'ari, Mahmudi & Nuerlaelah, 2017), (Saefi, Suwono, & Susilo, 2017), (Kusaeri, 2019), (Sari, Sumarmi, Astina, Utomo, & Ridhwan, 2019).

The fact above indicated that the pre-services teachers' critical thinking in Indonesia are still not fully empowered and developed. If it is not resolved immediately, it will have negative effect to them in the future. Thus, in this present study, to fulfill the gap above, the writer proposes a new learning model that is QASEE learning model as a teaching technique that can be used to enhance the pre-service English teachers' critical thinking. This is a new learning model developed by (Saputri, Corebima, Susilo, & Suwono, 2020). A quantitative research has shown that this new learning model can be used as a new reference to improve the pre-service teachers' critical thinking skills, especially for the lower academic ability (Saputri, Corebima, Susilo, & Suwono, 2020). The result has shown that there was a significant difference between the critical thinking score of the pre-service teachers taught by the QASEE learning model and conventional learning. That is the way the writer chooses this learning model to enhance the pre-service English teachers' critical thinking.

Critical Thinking

Critical thinking ability is a rational thinking skill and systematic. Thinking is a person's mental process to solve problems or achieve certain goals that link between ideas and facts. Critical thinking is an active and skilled process of intellectual discipline conceptualizing, apply, analyze, synthesize, and or evaluate the information collected from that which was manifested by observation, experience, reflection, reasoning and communication, as a guide to beliefs and actions (Scriven & Paul, 1987). In addition, Critical thinking skills lead to a logical and reflective thinking process to evaluate personal or others' opinion, make a decision and evaluate it through a high-order thinking process (Johnson, 2011). It can be concluded that Critical thinking is an active and well-organized mental process, the manifestation of which thinking takes into account other people think, practice what has been taught, and aim to understand events and surrounding conditions, so critical thinking is one of the vital elements scientific thinking. It is also imaged as a command to direct the mind indicating intellectual skills.

Critical thinking skills are needed to prepare students to enter the world of work and in society (Hove, 2011). In addition, students who have critical thinking skills will also find it easier to solve problems. An individual who can think critically will tend to have better focus, be able to find reasons, and take overall analytical actions when concluding problem-solving. Students who have good critical thinking skills can solve problems because they can focus

more on finding solutions to problems by analyzing them holistically. The relationship between critical thinking skills and learning is to prepare students to be great problem solvers, good decision-makers, and lifelong learners. Because of the importance of critical thinking skills, it should be combined with the curriculum to provide benefits for students in everyday life (Cansoy & Emin, 2017).

Critical thinking skills make students re-analyze, identify, evaluate, consider, redevelop all ideas and all assumptions they get so that in the end it will lead to a decision or conclusion that is considered the best and can be done (Lamartina & Ward-smith, 2014). The 21st-century skills that must be possessed by students in addition to critical thinking skills are communication skills. Good communication skills are invaluable skills in the world of work and everyday life.

Communication skills include the skills to convey thoughts clearly and persuasively orally and in writing, the ability to express opinions in clear sentences, convey clear orders, and be able to motivate others through good speaking skills. There are several indicators of critical thinking skills. The first is formulating problems. It means the skills in analyzing every problem in a course. Second, providing arguments accompanied by scientific evidence from the existing literature with good articulation. The third, carrying out evaluations accompanied by facts, principles or guidelines that exist. Last, concluding, namely determining the solution to the problem that occurs (Lloyd & Bahr, 2010).

QASEE Learning Model

The QASEE learning model is a new learning model. This learning model is designed to develop the critical thinking skills of pre-service teachers through constructive experiential learning. QASEE stands for Questioning, Answering, Sharing, Extending and Evaluating. The first is a questioning activity. Think about questions related to learning materials that have not been understood (or asked). This activity is believed to be related to critical thinking skills, where the level of pre-service teachers' questions indicates their level of critical thinking ability (DeWaelsche, 2015). Questioning activities were also reported as an effective learning method and preferred by college teachers to improve critical thinking skills even though it is difficult to do (Bezanilla et al., 2019).

The second is the answering activity. Look for answers to questions that have been written independently (or answered). The questioning activity together with the answering activity are the reading strategies which have been proven effective in practice to be a critical reader (Akkaya, 2012); when making questions, the pre-service teachers are required to initially read and understand the learning material, analyze and evaluate it. Then make relevant questions. Likewise, when answering questions, the pre-service teachers are required to be able to choose and pick information that is appropriate and relevant to the context in questions. The questioning and answering activities can be used as a bridge to develop initial knowledge which then can be used to increase involvement in the next learning stage (sharing activity).

The third is sharing activity. Share information with group members followed by presentations in front of the class. The sharing activity which is identical to cooperative learning has been proven to be more powerful in improving pre-service teachers' critical thinking skills than conventional learning (Kim, Sharma, Land, & Furlong, 2013). This is because the social interaction which facilitates mutual knowledge dialogue among peers provides scaffolding to improve their thinking skills, especially thinking to provide logical arguments against the arguments expressed by peers (Vygotsky, 1978). Asking questions and providing arguments to defend each other's opinions ultimately helps to build their reasoning and critical thinking skills (Kusaeri, 2019).

The fourth is extending activity which means strengthening understanding through knowledge transfer or expansion activities). Extending in this research is described as the activity of applying knowledge that has been obtained in the earlier stages to a new context related to real-world problems. This activity can also be used as a tool to measure pre-service teachers' concept gaining (Çepnİ, Ülger & Ormancı, 2017). This activity is also believed to contribute to the improvement of pre-service teachers' critical thinking. This is in line with the opinion which found that involving pre-service teachers in active learning, challenging their thinking processes, and facilitating cooperation in groups leads to an increase in their critical thinking skills (ŽivkoviL, 2016).

The last one is evaluating activity which means do an independent evaluation after a series of learning activities (or evaluation). Evaluating, especially self-reflection, is theoretically a self-evaluation activity that is essential for maximizing the zone of proximal development (ZPD) (Vygotsky, 1978). Self-reflection activity which is carried out following learning activities has been proven effective in upgrading critical thinking skills (Vong & Kaewurai, 2017). This is because critical thinking and reflective thinking are identical and occur simultaneously so that the pre-service teachers who are taught reflective thinking will automatically have better critical thinking skills than those who are not (Tican & Taspinar, 2015).

METHOD

Research Design

The design of this research is quasi-experimental with pre-test and post-test non-equivalent group design. In a non-equivalent group design, the researcher chooses existing groups that appear similar, but where only one of the groups experiences the treatment. Creswell (2012, p. 301) said that a pre-test provided a measure of the characteristics that assess the participants in an experiment before the group receive treatment, while a post-test is a measure of the characteristics that assess the participants in an experiment after giving a treatment. There are two variables in this research. The dependent variable of this research is critical thinking skill (Y) and the independent variable is the QASEE learning model (X).

The population of this research was the pre-service teacher in the English Education Department at USR in the 2020/2021 academic year. The writer used the cluster sampling technique to take the sample. The total sample was 72 pre-service English teachers. Then, the samples were divided into two classes. The first class was the Experimental class (With treatment) and the second class was the Control class (without treatment).

Data Collection and Analysis Technique

The writer used a test which is an essay test as an instrument to collect the data of pre-service English teachers' critical thinking skills. There were pre-test and post-test. The essay test had been validated by the learning experts and was declared valid to be used in this research. The answers to the essay test were scored based on the critical thinking skill rubric which is modified from Illinois Critical Thinking Essay Test (Finken, M & Ennis, R.H, 1993). The score range in the rubric is 0-5 with the components focus, supporting reasons and reasoning, organization, conventions and integration.

The data were analyzed by using a statistical method that is paired samples t-test formula by using SPSS program. The paired sample T-test will be used to find out the average value of the pre-service English teachers' critical thinking skills taught by using the QASEE learning and without the QASEE learning model. This analysis was carried out to test the pre-determined hypothesis. Ha or alternative hypothesis (There is a significant difference before and after being taught using the QASEE learning model on the pre-service English teachers' critical thinking skills). Then H_0 or null hypothesis (There is no significant difference before and

after being taught using QASEE learning model on the pre-service English teachers' critical thinking skill).

FINDINGS AND DISCUSSION

Findings

The data of this research were gotten from the scores of included the tables of the pre-test and post-test. The calculation these scores of using paired sample t-test.

Table 1. Statistical Description of Pre-Service English Teachers' Pre-test Score

Pre-test Score		
N	Valid	72
	Missing	0
Mean		64.4048
Median		67.5000
Mode		67.50
Std. Deviation		7.53760
Variance		56.815
Range		27.50
Minimum		50.00
Maximum		77.50
Sum		1352.50

From the table above, the researcher found that the mean of the data is 64.40, the median is 67.5000, the mode is 67.50, the standard deviation is 7.5376, the variance is 56.815, the range is 27.50, the minimum score is 50.00, the maximum score is 77.50 and the total score is 1352.50. From the mean score, it can be seen that the critical thinking score of pre-service English teacher was categorized into "Low" level.

Table 2. Statistical Description of Pre-Service English Teachers' Post-test Score

Post-test Score		
N	Valid	72
	Missing	0
Mean		75.9524
Median		77.5000
Mode		77.50
Std. Deviation		5.78123
Variance		33.423
Range		22.50
Minimum		62.50
Maximum		85.00
Sum		159.00

From the table above, the researcher found that the mean of the data is 75.95, the median is 77.5000, the mode is 77.50, the standard deviation is 5.7812, the variance is 33.423, the range is 22.50, the minimum score is 62.50, the maximum score is 85.00 and the

total score is 1595.00. From the mean score, it can be seen that the critical thinking score of pre-service English teachers was categorized into "Good" level.

Thus, it can be concluded that the implementation of certain learning models is more capable of equalizing the critical thinking skill of pre-service English teachers compared to the conventional learning model. In this case, the most potential learning model to empower the critical thinking skills of pre-service English teachers is QASEE learning model.

Discussion

The results of the paired sample T-test analysis showed that the critical thinking skills of pre-service English teachers who were taught using the QASEE learning model and conventional learning were significantly different from each other. However, based on the average value that has been corrected, the QASEE learning model has good potential in improving the critical thinking skills of pre-service teachers. The success of the QASEE learning model in improving the critical thinking skills of pre-service English teachers fu;;y supported by the learning stages, which as previously mentioned consists of Questioning, answering, sharing, expanding, and evaluating. Learning syntax has provided space for pre-service teachers to think through questions, cooperative learning groups, oral presentations, authentic learning activities, and written reflection which are summarized as effective activities to improve critical thinking skills in higher education. This is also mediates pre-service English teachers to think independently and logically. It is reported to be one of the aspects to be a critical teacher (Kusaeri, 2019)

On the other hand, the conventional learning class, there are no activities that require pre-service teachers to read or make questions and answers, only the group makes presentations and only a few pre-service English teachers master the learning material. Some of them just listen and write down the material presented by their friends. The results of the paired sample T-test analysis can be explained in detail as follows.

First, the statistical analysis has shown that the QASEE learning model has the good potential in facilitating pre-service English teachers to improve their critical thinking skills. The learning activities in QASEE learning model facilitated the pre-service English teachers to construct their knowledge individual and teamwork. They also can do the self-reflection. The pre-service English teacher constructs their knowledge individually through the questioning and answering activity. This is carried out for a few minutes before the class start. The activities includes in reading comprehension strategy. It has been proofed that this strategy effective for practicing the critical thinking skills (Akkaya, 2012).

When the pre-service English teachers are questioning and answering, they were required to practice how to analyze, assess, and select the information needed to complete their assignments. This is useful because it may increase their prior knowledge (Mahanal, 2019). The prior knowledge is useful for them in criticizing the information conveyed by other students in subsequent learning activities. Next, in sharing activity, the pre-service English teachers construct their knowledge through group discussions. In group discussions, they can exchange information by asking and answering each other. It has been proven that group discussion with various cognitive activities, such as explaining, critiquing ideas, debating, clarifying, and collaborating, could increase the development of their critical thinking skills (Kim, Sharma, Land, & Furlong, 2013).

Then, the expansion activity, the pre-service English teachers were required to apply the knowledge or information that they got from the previous three activities into new contexts. It is done by giving them assignments related to real-life problems. The assignment required pre-service English teacher to think critically in solving or finishing them. The last one is evaluating activity conducted to evaluate or reflect what has been done so far. In this case,

evaluating means that the self-reflection of the pre-service English teachers towards their learning such as what they had learned, the challenges or difficulties that they felt in the process, etc. this activity required them to do reflective thinking, which is the basis for enhancing critical thinking.

Thus, from the result and discussion above it clearly showed that the QASEE learning model can be used as an alternative way to enhance the pre-service English teachers' critical thinking skills. The activities in QASEE learning model have proven able to empower the development of the pre-service English teachers' critical thinking skills.

CONCLUSIONS AND SUGGESTIONS

From all of the explanation above it can be concluded that in enhancing the pre-service English teacher cannot be achieved by using conventional learning. It must be supported by the implementation of particular learning model that facilitate the pre-service English teacher to have a high-order thinking activity. The result of this study has proven statistically that QASEE learning model can be used as a learning model to nurture the critical thinking skills. It means that the alternative hypothesis of this study was accepted namely there is a significant difference before and after being taught by using QASEE learning model on the pre-service English teachers' critical thinking skill.

Based on the research findings, it is possible in the future for researchers to conduct a new research related to this new learning model in different setting and context.

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