



Encouraging Critical Thinking Skills among Pre-Service Teachers through Asynchronous Online Discussion: Advantages and Challenges

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Abstract. This article emphasizes the significance of critical thinking skills in pre-service teachers and the potential role of Asynchronous Online Discussion (AOD) in enhancing these skills. The authors argue that universities should modernize their curriculum in order to cater to the evolving needs of students and the demands of a globalized world. The Indonesian Ministry of Education's requirement for a Bachelor's degree in Education for teaching certification is highlighted. However, the authors identify challenges in training English pre-service teachers in Indonesia, such as the gap between theory and practice and insufficient English proficiency and critical thinking skills. They propose that AOD can enhance depth of thought, comprehension, and argumentation skills. Despite this, they acknowledge challenges like technological barriers and the necessity for reliable internet access. The authors conclude that while AOD has substantial potential in fostering critical thinking skills among pre-service teachers, meticulous planning and implementation are crucial to surmount potential obstacles.

Keywords: Critical Thinking Skills, Asynchronous Online Discussion, Engagement.

1 Introduction

Acquiring critical thinking skills is essential for college graduates, especially pre-service teachers, as these skills enhance the teaching process and positively impact student growth. Furthermore, pre-service teachers with advanced critical thinking abilities can develop educational opportunities that encourage active student participation and build an elevated degree of critical thinking among students. Elder asserts that critical thinking abilities are essential to every professional development program, as they are vital for effectively instructing any subject [1]. Thus, it is crucial to bolster these talents in student teachers' education programs by involving them in suitable tasks and settings to mold their cognitive abilities. Acquiring CT skills in university also enables students to develop Higher-Order Thinking Skills (HOTS), encompassing the advanced levels of analysis, assessment, and production in Bloom's Taxonomy [2]. It underscores the significance of fostering the development of critical

thinking abilities in aspiring educators and equipping them with instruction on how to apply these skills during their teacher training programs.

In order to adequately educate pre-service teachers for the workforce and provide them with the necessary skills, the university needs to update its curriculum to align with the needs of students and ensure its relevance over time. The purpose of the revision is to fulfil the needs of the country and to be able to compete effectively in a globalized world [3]. Cheal et al. [4] argue that training pre-service teachers for future teaching roles can be challenging. Thus, it is crucial to modify the curriculum to ensure that pre-service teachers are sufficiently equipped for the classrooms of tomorrow.

As a result, the Indonesian Ministry of Education has trained teachers at every education level who possess scientific and practical qualifications. In Indonesia, the government has mandated that individuals possess a Bachelor's degree in Education in order to qualify for a teaching certification and work as a teacher. Colleges of education provide this degree as educational institutions specialize in training teachers for elementary and secondary schools. The programs offered by these institutes of education provide students with the required information and abilities to carry out their duties as instructors efficiently. These colleges grant Bachelor of Education degrees in many fields, such as German, Japanese, English, history, childhood studies, special education, mathematics, physics, chemistry, biology, computer science, etc.

The main objective of the Bachelor of Education program is to educate students to become pre-service teachers in the field of education and promote their critical thinking about challenges encountered in practical settings. There is an expectation that they can substantially contribute to improving the quality of education in society. Therefore, student teachers must successfully finish eight semesters, with each semester spanning four months, resulting in a total program duration of four years in these institutions. In the seventh semester, students engage in a teaching practicum where they receive training in schools. This practicum typically lasts approximately three to four months or nearly the whole semester.

Nevertheless, training English pre-service educators in Indonesia poses a challenging endeavor. Hadi [5] contended that English Education Programs in Indonesia fail to adequately enhance pre-service teachers' English proficiency and pedagogical abilities. He noticed an imbalance between theory and practice in the curriculum, which restricts the creation of suitable, contextual, and integrated English teaching and learning experiences. Additionally, prospective instructors possess insufficient proficiency in English and lack critical thinking abilities [6], [7]. Evidence suggests that pre-service instructors have a limited understanding of effectively addressing their students' diverse abilities and needs. They experience psychological challenges when it comes to teaching, such as feeling anxious, lacking confidence and motivation, and feeling uneasy while presenting. Thus, their future careers will be impacted [6].

The supply of proper strategies is vital for equipping potential teachers with professional competencies. Universities must guarantee that the teaching strategies meet the school's criteria. In order to get the intended results, it is necessary to make changes to the teaching strategies. Most research conducted on pre-service teachers has focused on their challenges, preparedness, and experiences during teaching

practicum [6], [7]. Furthermore, Lomi and Mbato [8] advised that educators and educational policymakers should understand the importance of career perspectives and motives in the teaching field. Nue and Manara [9] stated that English linguistics and pedagogical expertise were considered valuable assets that allowed pre-service teachers to engage in the peripheral circle of the teaching community of practice during their practicum in schools.

Recent studies conducted in Indonesia have suggested that universities and colleges of education should revise their curriculum to give greater emphasis to the cultivation of critical thinking abilities among student-teachers. The teacher plays a crucial role in any educational reform. Therefore, it is essential to provide learning strategies for the English Language Teaching Methods (ELT Methods) course that help students develop and enhance their critical thinking abilities, which are vital for success in their respective fields, especially in the context of the knowledge revolution.

In order to address these issues, the implementation of AOD has been introduced in the teaching and learning of the ELT Methods course. Asynchronous online discussion involve people contributing to the dialogue at different intervals rather than in real time. Usually, these strategies occur in Learning Management Systems (LMS) or specialized online forums. The AOD enables participants to contemplate their comments, interact with various viewpoints, and expand upon each other's ideas over a prolonged duration. The study aims to investigate the students' viewpoint regarding the advantages and difficulties of AOD in enhancing the critical thinking abilities of pre-service teachers.

2 Methods

The research design was qualitative because the purpose of this study is to describe the students' perception toward the implementation of AOD in promoting pre-service teachers' critical thinking abilities. This investigation was conducted at one of the public universities in Surabaya that has an English Education department. The instrument was an interview protocol. Two English pre-service teachers were interviewed in this study. The participants were in the third semester and engaged in the English Language Teaching Methods (ELT Methods) course for approximately two months. The potential participants are selected based on some criteria. First, they are undergraduate students in the English education study program and have joined the ELT Methods course. Next, gender and GPA (Grade Point Average), which varied in ranges from 2.00 to 4.00, were also considered. Lastly, they were willing to participate well in the research. This investigation was conducted for two months. Data analysis consisted of data reduction and verification of findings. Then, we scanned, coded, and analyzed the documents for explicit and implicit mentions of literacy strategies.

3 Results and Discussion

The results have demonstrated that implementing AOD to foster students' critical abilities offers numerous advantages. Initially, AOD can potentially improve the depth of thought and the ability to ruminate. One of the interviewees stated that "AOD provides time to contemplate our responses deeply. So, I have time to think deeply, and it makes me a critical thinker. I always analyze my answer before I post it". It is possible to argue that AOD fosters critical analysis and deliberate reflection, which are essential for cultivating higher-order thinking skills [10].

Next, AOD can assist pre-service teachers in expanding their comprehension and cultivating a more sophisticated viewpoint on specific topics. All interviewees responded, "Our colleagues' exposure to our diverse perspectives can challenge us to question their assumptions." Therefore, we assess their distinct arguments and contemplate alternative perspectives. All of these activities significantly influence the development of critical thinking abilities. It is consistent with Benjamin Loo's assertion [11] that the discourse is enriched by various viewpoints, as evidenced by the participation of individuals from various geographical, cultural, and educational backgrounds. This exposure enables pre-service teachers to broaden their comprehension, challenge their biases, and cultivate more sophisticated viewpoints on academic matters.

Additionally, AOD necessitates that participants engage in order to communicate their thoughts effectively. One of the interviewees stated, "In asynchronous online discussions, I am required to clearly articulate our logical arguments and thoughts in order for our friends to comprehend them." This process demonstrates that instructors must provide effective teaching and problem-solving in the educational context in order to improve students' critical abilities. Consequently, instructors can develop AOD activities that facilitate or direct students in developing their prior knowledge through learning activities. This structured approach aids in the development of a more complex and multifaceted comprehension of issues. According to Halpern [12], the critical thinking skills domain encompasses the following: evaluating, making decisions, solving problems, drawing inferences using inductive or deductive reasoning, and analyzing arguments.

Afterwards, AOD can encourage pre-service teachers to collaborate to cultivate a sense of community and collective learning. Both interviewees said, "Using AOD can enhance my interpersonal abilities with my friends. They may also respond to my response when I express my viewpoint. This condition makes me to be confident in expressing my viewpoint. Also, I am required to respond to the opinions of my peers, which can enhance my argumentation abilities regarding a particular matter." It argues that AOD fosters student collaboration by encouraging them to engage in online interactions. It can potentially improve the content of the discussion by providing flexibility [13]. The pre-service teachers are capable of accommodating their unique learning styles and schedules. Consequently, students can be motivated to participate as a result of flexibility.

Despite the numerous advantages, the integration of asynchronous online discussions into teacher education programs presents a number of obstacles. Technological

barriers are one of the challenges. According to the two participants, certain pre-service instructors may encounter substantial obstacles due to their lack of access to digital devices and reliable internet. They have replied, “Occasionally, our participation in online discussions was impeded by our unstable internet connection.” According to reports, they cannot directly respond to online discussions due to data and signal constraints. It is contended that the success of online education necessitated an ICT infrastructure and computer literacy [14].

4 Conclusion

Asynchronous online discussions hold significant promise in promoting critical thinking skills among pre-service teachers. By providing a flexible and reflective platform for engagement, these discussions can enhance the depth of thought, expose participants to diverse perspectives, and develop essential argumentation skills. However, to realize these benefits, careful planning and implementation are necessary, as well as addressing potential challenges and leveraging best practices. By integrating asynchronous discussions effectively into teacher education programs, we can better prepare future educators to think critically, engage thoughtfully, and teach innovatively in an ever-changing educational landscape.

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