

FOSTERING CREATIVE THINKING SKILLS IN PROSPECTIVE ELEMENTARY SCHOOL TEACHERS: DEVELOPING TEACHING MATERIALS BASED ON THE PROJECT-ORIENTED TPACK APPROACH

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Abstract

The results of the preliminary study show that the creative thinking skills of prospective elementary school teacher students are relatively low, especially in designing technology-based learning that is to the needs of the 21st century. Therefore, this study aims to develop project-oriented TPACK (Technological Pedagogical Content Knowledge)-based teaching materials to improve the creative thinking skills of elementary school teacher education students. This study used a research and development (R&D) method adapted from Borg & Gall. The subjects of the study consisted of 128 elementary school teacher education students involved in learning planning for elementary schools. The study results show that project-oriented TPACK-based teaching materials are valid, practical, and effective. Experts have confirmed that the teaching materials are valid in construction and content. In addition, observations of increasing student activity at each meeting indicate that the teaching materials are applied practically in learning planning. The students' creative thinking skills test results show that these teaching materials effectively improve the creative thinking skills of prospective teachers. This study implies that using the proper method can improve students' creative thinking skills to design various alternative solutions to problem-solving in learning. This study suggests further developing project-oriented TPACK-based teaching materials for elementary school students.

Keyword: Creative thinking skills; TPACK framework; Project-oriented learning

INTRODUCTION

Creative thinking skills are increasingly recognized as essential skills that students need, especially for those studying in the field of education (Thornhill-Miller et al., 2023). This skill is essential for students' personal development and crucial in the educational context to prepare them to face complex challenges in the world of education. Creative thinking skills enable individuals to generate innovative ideas, solve problems in new and efficient ways, and adapt to continuous change (Tang et al., 2020). In education, this skill is essential for designing engaging learning, overcoming various problems that arise in the learning process, and inspiring students to think outside the box and find creative solutions to issues faced (Sternberg, 2003). However, many students, including prospective teachers, need help developing this skill to its full potential.

Based on various studies and observations at several state universities in Indonesia, it was found that the creative thinking skills of prospective elementary school teachers still need