Making creative thinking visible: An approach to enhance preservice teachers’ professional knowledge in creativity instruction

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1. Introduction

Creative thinking has been greatly emphasized in secondary school education; it is therefore important to cultivate preservice teachers’ professional knowledge in creative thinking instruction.

Visible thinking is one type of thinking approach that acquires learners to start with objectively and carefully observing and documenting their surroundings or a given object. Then, learners document their thinking process and reflect on their learning.

This study aims at employing visible thinking to enhance preservice teachers’ professional knowledge.

2. Methodology

Participants

Fifty pre-service teachers (31 Females and 19 Males; Mean age 21.2 ± 2.3) participated in an 8-week (3 hours per week) experimental instructional program.

Instrument

Inventory of professional knowledge in creative thinking instruction was employed to measure participants professional knowledge in creative thinking instruction (Cronbach’s α = .96)

Experimental design and procedures

This study employed a one-group pretest- posttest design and experimented with an 8-week instruction in the course. In the first week, all participants received the pretest of the measurement of professional knowledge in creative thinking instruction, and received the “Making Creative Thinking Visible Intervention” from the first to the eighth week. In the eighth week, all participants took the post-test.

3. Results

Repeated measure analysis of variance demonstrated that the intervention effectively improved the preservice teachers’ professional knowledge in enhancing students’ dispositions and skills of creative thinking, F(2, 49) = 53.74, p < .001, ηp² = .52.

Content analysis showed that visible thinking practices through the assignments of mind mapping, SCAMPER, six-thinking hats, imagination practices in everyday life, and instructional design are important mechanisms underlying this success.

4. Conclusion

Our findings suggested that Making Creative Thinking Visible Intervention may facilitate the professional knowledge in creative thinking instruction by employing visible thinking practices.

This study provides easy-to-use instructional strategies (e.g., mind mapping, SCAMPER, six-thinking hats) for cultivating preservice teachers’ professional knowledge in creative thinking instruction.

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