

Fostering Creative Thinking in Pre-Service Primary Teachers through Thinking Routines

Francisco Javier Zarza-Alzugaray

Musical and Visual Arts Expression, University of Zaragoza, Zaragoza, Spain

Nora Ramos Vallecillo

Musical and Visual Arts Expression, University of Zaragoza, Zaragoza, Spain

Víctor Murillo Ligorred

Musical and Visual Arts Expression, University of Zaragoza, Zaragoza, Spain

Abstract

In initial teacher education for Primary Education, fostering the development of critical and reflective thinking is essential, beyond the mere acquisition of content knowledge. In this context, thinking routines emerge as an effective pedagogical strategy to enhance both the planning of learning situations and the academic performance of university students.

This study was conducted with a sample of 232 students enrolled in the Bachelor's Degree in Primary Education. Thinking routines, based on the model proposed by Ritchhart, Church, and Morrison (2011), were systematically integrated into the teaching-learning process. To analyse their impact, written assessment results were compared between students who correctly applied thinking routines and those who did not use them or applied them only partially. Data were analysed using descriptive and comparative quantitative procedures.

The results indicate that students who appropriately employed thinking routines in examinations achieved significantly higher scores both in written exams ($F(218) = 15.387$, $p = .001$; $\square$ yes = 7.96; $\square$ no = 7.22) and in the final course assessment ($F(224) = 16.656$, $p = .001$; $\square$ yes = 8.29; $\square$ no = 7.76). In addition, notable improvements were observed in the organisation of responses, analytical capacity, and the quality of learning situation design.

The findings demonstrate the effectiveness of thinking routines as a methodological tool in initial teacher education. Improvements in academic performance and didactic competencies reinforce the need to systematically integrate these strategies into curricula, contributing to a more reflective, evidence-informed approach to teaching.