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## PEDAGOGICAL INNOVATION BASED ON A PERSONAL LEARNING ENVIRONMENT TO DEVELOP TEACHERS' DIGITAL COMPETENCIES

## Abstract:

This study reports an investigation carried out to determine the impact of a pedagogical innovation based on the PLE to develop the digital skills of teachers in training and their perception of the use of technology in learning. The Pedagogical innovation is based on the sociocultural theory of learning and the connectivist theory. The sample consisted of 72 teachers in training, registered in the Master's Degree in Educational Technology at Casa Grande University (Ecuador). The applied methodology had a mixed approach. Before and after the intervention, a test was applied to determine the digital competencies of participants and establish the differences between both results. The PLEs of the participants were also evaluated to determine the incorporation and use of digital resources in the didactic activities achieved. Finally, a survey was applied to determine the teachers' feelings and beliefs about the PLE in their learning process and the pedagogical experience carried out. The results confirm that the pedagogical innovation based on the use of the PLE facilitated the development of participants' digital skills and developed in them a positive perception about the incorporation of technology in learning. The PLE as a teaching strategy facilitates the personalization of learning through the development of individual and group activities with the support of technological resources that can be selected based on the specific needs of the students and their level of digital skills.

## **Keywords:**

Digital competencies, Personal Learning Environment , Pedagogical innovation, PLE, Learning Methods.

JEL Classification: I20, I23, I29