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Self-Perceived Digital Competence of Instructors in Electronic Technology: A Case Study at the University of Almeria

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Abstract

The development of digital competence among faculty members has become a key priority for higher education institutions, given the rapid integration of technology in teaching and learning environments. Ensuring that instructors are adequately prepared to navigate these changes is essential for maintaining educational quality and fostering innovation. This study presents a self-perception assessment of teacher digital competence among university instructors in the field of Electronic Technology at the University of Almeria. The COMDID-A self-assessment test was used to evaluate digital competence across four main dimensions: (1) Didactics, Curriculum, and Methodology; (2) Planning, Organization, Space Management, and Digital Technological Resources; (3) Relationships, Ethics, and Security; and (4) Personal and Professional Development. The findings identify areas of strength and improvement, providing valuable insights for designing targeted professional development and training initiatives. In particular, faculty members perceive themselves as most competent in the didactic, curricular, and methodological dimension, while the relational, ethical, and security dimension was identified as the main area for improvement. Furthermore, the study highlights the importance of implementing innovative pedagogical models to further enhance digital skills among faculty. Future research directions include exploring the correlation between digital competence across different university departments.

Keywords: digital competence; electronic engineering; faculty training; higher education; professional development