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A COMPETENCE DEVELOPMENT APPROACH FOR FLEXIBLE, AUTONOMOUS AND SELF-DIRECTED DEVELOPMENT OF EDUCATION IN TECHNOLOGY CONTEXTS

Abstract:

The vocational education system is affected by the speed of technology and vocational change. Challenges arise for engineering-technology teachers to keep up with the creation of new education. In an ever faster cycle of development and delivery, engineering-technology teachers are to be educated to acquire domain knowledge for new vocational tasks and transform this into relevant learning tasks for students. To contribute to such engineering-technology teacher challenge, the Teacher Training Institute of Fontys University of Applied Sciences designed a competence development approach for self-directed development of competence in the didactisation of new vocational tasks in technology contexts. The approach described in this paper is based on the modelling of knowledge for new vocational tasks and the didactisation of that knowledge through generic technology and engineering concepts, into meaningful learning activities for students. It is the premise of reuse of technology concepts and didactics, transferable across technology contexts, which is important to the flexible development and delivery of new education. The paper describes how the competence development approach is designed, implemented and evaluated at Fontys University of Applied Sciences, Technical Teacher Education Institute.

Keywords:

competence development approach, vocational education, engineering-technology teacher education

JEL Classification: I20, I29