

Design of a Professional Development Framework in Teaching and Learning for Engineering Educators

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Abstract : Ireland's national professional development framework for those who teach in higher education, aims to provide guidance and leadership in the planning, developing and engaging in professional development practices. A series of pilot projects have been initiated to help explore the framework's likely utility and acceptance by educators and their institutions. These projects require engagement with staff in the interpretation and adaption of the framework within their working contexts. The purpose of this paper is to outline the development of one such project with engineering educators at three Institutes of Technology seeking designation as a technological university. The initiative aims to gain traction in the acceptance of the framework with the engineering education community by linking core and discipline-specific teaching and learning competencies with professional development activities most valued by engineering educators. Informed by three strands of literature: professional development in higher education; engineering education; and teaching and learning training provisions, the project begins with a survey of all those involved in teaching and learning in engineering across the three institutes. Based on engagement with key stakeholders, subsequent qualitative research informs the contextualization of the national framework for discipline-specific and institutional piloting. The paper concludes by exploring engineering educator perceptions of the national framework's utility based on their engagement with the pilot process. Feedback from the pilot indicates that there is a significant gap between the professional development needs of engineering educators and the current professional development provision in teaching and learning.

Keywords : engineering education, pilot, professional development, teaching and learning

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