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Higher education (HE) has expanded and diversified at an unprecedented rate over the last two decades in response to a rapidly changing educational and political climate (Henkel, 2016; Saroyan and Trigwell, 2015). Change is omnipresent, a constant part of teachers’ sociocultural and organisational practice at multiple levels; at the micro-level of the individual, the meso-level of the department or programme and the macro-level of the institution (Leibowitz et al, 2014; Hannah and Lester, 2009). This suggests that when researching teaching and learning practices it is essential to adopt a holistic perspective, exploring not only individual factors but also sociocultural and structural factors and their interrelationships.

The research presented is a series of five studies that constitute an exploration of academic change and development in a HE teaching and learning environment supported by educational technology. A twelve-year longitudinal study of teachers on an online pharmacy programme forms the basis for the research. The principal aim of the research was to gain a deeper understanding of the factors that influence academic change with the additional aim of providing insight into factors that may be relevant in the design of academic development activities to support teachers and managers in the enhancement of teaching and learning. A multilevel approach was used to investigate academic change and development addressing micro-, meso- and macro-levels of the university teaching environment (Hannah and Lester, 2009; Kozlowski and Klein, 2000). The approach captures the influence of factors such as conceptions and approaches to teaching at the micro-level of the individual teacher (Postareff and Lindblom-Ylänne, 2008; Trigwell, Prosser, Martin, & Ramsden, 2005), as well as the influence of systemic factors such as sociocultural and structural context at both the meso-level of the department or programme (Neumann, Parry, & Becher, 2010; Trowler, Saunders, & Bamber, 2012) and the macro-level of the institution (Fanghanel, 2007; Leibowitz, et al., 2014).

The research studies suggest that at micro-level a critical factor in the choice and use of educational technology is the underlying conception of and approach to teaching and learning of the teacher (Kim et al, 2013; Glassett, 2009). Opportunities for change and development were found to be facilitated by the sociocultural context of the teacher at meso-level encompassing support from the community and mediating tools for communication (Mårtensson and Roxå, 2016; Trowler and Wareham, 2008). However institutional policy and strategy at macro-level, as interpreted by the department, was seen to impede change and development, where research is given priority over teaching (Deem and Lucas, 2007; Fanghanel, 2007). At the meso-level of the programme, the opportunity to work together as a team to collaboratively construct and develop practice was found to be of significance in the development of agency and interdisciplinary cooperation (Haapasaari, Engeström, & Kerosuo, 2016).

Taking into account a combined analysis of the five studies, it becomes apparent that change and development in HE is influenced by factors at the micro-level of the individual teacher,
by contextual sociocultural factors at the meso-level of the department or programme and by contextual structural factors at the macro-level of the institution. If a deeper understanding is to be achieved, it is necessary to adopt a holistic approach, considering factors at micro-, meso- and macro-level and the interrelationships between these factors. The research suggests that an effective strategy for the facilitation of academic change and development may be the introduction of a Scholarship of teaching and Learning (SoTL) model where initiatives at the three levels are aligned so that SoTL is linked both to academic development at micro- and meso-levels and excellence and promotional frameworks at macro-level (Booth and Woollacott, 2017).