

## Threshold Concepts in finance

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Graduates with well-developed finance skills are invaluable to our society. For example, in Australia, wealth management – which relies on financial expertise – is predicted to be one of the five most important industry sectors for the near future (Deloitte, 2013). Universities face the challenge of providing finance programs to develop these essential skills, at the same time meeting the needs of a diverse student cohort. Our research responds to this challenge by identifying the threshold concepts (Meyer & Land, 2003) that are central to the mastery (Cousin, 2006) of finance, with the aim of improving curriculum design and identifying specific pedagogical practices for teaching threshold concepts in order to improve student engagement and outcomes.

Our research is informed by the work of Diamond and Smith in relation to threshold concepts in quantitative finance (Diamond, 2013; Diamond & Smith, 2011) and business statistics (Diamond, 2011), as well as other research into threshold concepts in statistics more generally (Bulmer, O'Brien, & Price, 2007; Dunne, Low, & Ardington, 2003; Thompson, 2008; Quinnell & Thompson, 2010). We also draw on the work of Davies & Mangan (2007) in relation to economics.

Whilst our overall project involves a combination of focus groups, interviews and surveys to investigate both staff and student perceptions of threshold concepts in finance, in this paper we focus on staff perceptions. We report on the results of an online questionnaire sent to finance academics at multiple institutions in Australia, Canada, New Zealand, South Africa and the United Kingdom to obtain feedback on the proposals for finance threshold concepts identified in our previous research activities (Hoadley, Wood, Kyng & Tickle, 2013). In addition to asking for feedback on the finance threshold concepts identified in our research, the questionnaire provided respondents with the opportunity to nominate important concepts in finance themselves. Respondents were asked to indicate whether four key characteristics of threshold concepts (transformative, integrative, irreversible and troublesome) apply to the finance concepts identified. The questionnaire also included questions relating to the value of threshold concept theory to the learning and teaching of finance more generally. A combination of closed and open questions were used to allow for both quantitative and qualitative analysis.

As a result of the questionnaire, we have been able to refine our initial list of finance threshold concepts. Whilst the results indicate reasonable agreement that a number of core concepts nominated are threshold concepts in finance, there was little agreement about some of the other concepts nominated. The outcomes of questionnaire have allowed us to further develop our conceptualisation of the finance curriculum, particularly in relation to how concepts relate to one another and the role of statistics. The responses also indicate an appreciation of the value of threshold concept theory, which is not dependent on the respondent's previous exposure to the theory.

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