

Twenty four chapters on a variety of subjects means that each chapter is of a digestible length, providing an overview of the topic without going into the level of detail which would bamboozle the lay reader. This is particularly the case with the chapter on quantitative analysis. I could not claim to understand frequency polygons after reading these pages, but might at least recognise one in a student dissertation. I would also have a much better idea about when it would be appropriate to use one, and be aware of sources of further information.

The book includes over 50 references from 2007 onwards (the date of the original edition). I wrongly imagined that these would be largely about advances in information technology. Although this was sometimes the case there are also citations to several new overview texts about research methods being published, and a pleasing number of articles about research ethics, which appears to be a hot topic in academia currently. The reference list also reinforces the range of academic disciplines covered in the book, from nursing to computer sciences, Latino Street gangs and all points in-between.

Threshold Concepts: From Personal Practice to Communities of Practice
Catherine OMahony, Avril Buchanan, Mary O'Rourke & Bettie Higgs (eds.)

The Irish National Academy for Integration of Research, Teaching and Learning (2014)
Review by Eve Rapley

The January 2014 NAIRTL (National Academy for Integration of Research, Teaching and Learning) Threshold Concepts conference papers provide both breadth and depth, capturing and articulating both the essence and substance of Threshold Concepts. The span of papers ensures that both the largely uninitiated, and those with more knowledge and interest in this area of higher education pedagogy, are equally catered for. With a range of academic disciplines from geology, history, art, mathematics and engineering in which to contextualise underlying concepts, the papers and vignettes successfully tread the path between inaccessible and esoteric theory, and an atheoretical 'dummies guide' approach.

In addition to the breadth of disciplines featured, papers focus on undergraduate, postgraduate and international students and cases, as well as those from our own shores and those further afield. With a spectrum of methodological diversity from the 'tried and tested', to those championing the evolutionary nature of Threshold Concepts, the proceedings present a veritable smorgasbord of approaches and angles. Sensibly put together into five clearly orientated sections, the proceedings are logically ordered, with each paper being short, yet, on the whole, packing a punch. It is perhaps this snappy writing approach which makes the collection so entirely readable and worth any HE teacher taking a look at.

As an HE teacher, I am well acquainted with the difficulties oft cited and experienced by students as they grapple, often with difficulty, with the notion of moving towards and through liminal spaces; spaces where students encounter 'troublesome knowledge' and find themselves unable to move beyond it; a 'stuck place'. I have seen firsthand, genuine discomfort and confusion from students as they begin to face the

prospect of their hitherto acquired knowledge and certainties being challenged and, at times, turned inside out and given a metaphorical shake. Everything previously and unquestioningly held as being the truth can begin to morph and change, creating a state of confusion and a raft of questions and nascent hypotheses. Referred to in the literature as ontological shift, it is this notion of philosophical positioning that is so conceptually difficult to contend with, yet is presented so neatly and accessibly within this collection.

The keynote by Professor Ray Land, a renowned founding father of Threshold Concepts, adds some serious intellectual weight to the proceedings, giving the reader both something of a crash course in underlying principles, as well as a particularly potent re-visiting and re-imagining of the oft-cited definitions and constructs. Whereas much that is written about Threshold Concepts tends to dwell upon the negative and the aspects of difficulty and confusion, Land opts for an altogether more positive tack. Whilst he acknowledges the disorientating and unsettling nature of being on the wrong side of a Threshold Concept, and of the journey through to the other side, he invites readers to see a 'stuck place' as a place for student re-awakenings and a place to be embraced as one as a space for transformation, not merely as somewhere for students to struggle and to merely 'get through'. He talks of liminal spaces as being difficult, but also in terms of being 'emergent...where emergent identities arise'. He also talks of them being a place where previously held truths and ways of viewing the world have to be jettisoned, to be 'let go' in order that the new ways of thinking can come into existence. He portrays this letting go as both necessary and emancipatory. His vigorous assertion that Threshold Concepts and liminal spaces are there to be seized and acknowledged as being places both for pleasure and pain, are cogently presented.

Belinda Allen's paper continues this theme of adopting an optimistic embrace, rather than a fearful cower. Her talk of students moving towards and through Threshold Concepts and liminal spaces in terms of 'liberation', 'receptiveness' and 'growth' all chime with Land (and many of the other authors from the collection), again offering up an altogether more positive and alternative reading of what has sometimes been considered a concept firmly rooted in the realms of theory, and not the applied.

The quietly impressive range of papers within the collection abundantly illustrates the multidimensional nature of Threshold Concepts. They take the reader beyond the standard reading of Glynis Cousin's notions of Threshold Concepts being 'betwixt and between conceptual mastery'. They paint an altogether more rich and practical portrait that HE teachers might meaningfully take to re-shape their own practice. The emphasis on teachers needing to be mindful of Threshold Concepts, to assist students in negotiating their way through, and to tolerate confusion, is eloquently yet purposefully stated. A number of papers talk in detail about the need for HE teachers to identify their own disciplinary Threshold Concepts, to acknowledge their existence and to develop a pedagogy both to promote learning, and to decrease teacher frustration.

At a time when much is written in both the popular press and academic literature about the very nature and purpose of higher education (often in response to concerns about deficits in criticality and higher thinking from undergraduates), this publication could not be more appositely timed. As university teachers, it also highlights the question that we've been asking ourselves since time immemorial: 'Why don't they get it?' Perhaps reading this will put us all in a better place to address the question, and to come at this age old problem from a different, and more enlightened space.

Materialities, Textures and Pedagogies

Tara Fenwick and Paolo Landri (Eds.)

Routledge (2014)

Review by Gill Clifton

Materialities, Textures and Pedagogies is an edited collection of seven articles originally published in *Pedagogy, Culture & Society* (vol 20 issue 1, Mar 2012). Contributors are drawn from a range of International and European institutions that span a variety of faculties including Education, Sociology, Education Sciences and Technology Enhanced Knowledge Research. This broad base means the authors cover a range of contexts which include curriculum and practice in relation to schools and post-compulsory education, as well as learning in the context of the workplace and the community. However, the dynamic of the perspectives is brought together by the authors' central aim, which is to challenge perceptions of education that only take account of the human subject. Promoted as joining 'a developing tradition of "practice based" conceptions of learning but with a special interest in foregrounding the materiality of educational processes', the authors argue that materials (described as texts and technologies, tools and natural forces and the concept of embodiment) are in fact central to understanding how learning and knowing can be seen as a collective activity. Such a sociomaterial analysis, it is argued, proposes a reconceptualisation of what is understood to be pedagogy and of where and how pedagogical processes occur, including the effects they can have on culture and society.

In this sense, the authors position pedagogy within the context of Action Network Theory (ANT) and the broader concept of Science and Technology Studies (STS). Briefly, ANT sees understanding (and thus methods of analysis) as a web of interconnected relationships located within material and semiotic (signs and symbols) domains. In foregrounding ANT, the authors set out to 'expand and push forward ANT or STS conceptions of pedagogical enactments' and they do this through both theoretical and empirically-evidenced studies.

As the name implies, ANT, albeit a theory, is actually concerned with exploring the relational ties that link a network together, rather than seeking to discover 'how' or 'why' the network exists. In this sense, this collection assembles examples of what could be perceived to be different 'networks', for example: the notion of a standardisation network in relation to professional standards in education, a science classroom, a professional work environment, work-related online communities, and women in voluntary community organisations. The authors interrogate the materials and semiotic connections within the different settings in the context of various case