Visualising the pedagogic frailty model as a frame for the scholarship of teaching and learning

Ian M. Kinchin

Department of Higher Education, University of Surrey, Guildford, UK

Abstract

Purpose – The purpose of this study is to offer exploration of pedagogic frailty as a framework to support professional development of university teachers in a personalised and discipline-sensitive way.

Design/methodology/approach – The method involves participants constructing a concept map for each dimension of the model. These maps must have high explanatory power to act as a frame for developing a personal narrative to support reflection on practice. This reflection starts from the academic's current knowledge structure and provides a bespoke, individualised focus for further learning.

Findings – This conceptual paper is informed by case studies of academics' interactions with the frailty model that have helped to refine it as a faculty development tool. This is clarified by providing explicit requirements of an "excellent" map, and places the reflective process within a learning theory that is aligned with the values that underpin the model.

Originality value – The type of rhizomatic learning that is supported by the model, in which there are no imposed learning outcomes or strictly delineated pathways to success, is particularly suited to support the professional development of more senior academics. This represents an innovative approach to faculty development.

Keywords Professional development, Concept mapping, Reflective practice, Rhizomatic learning

Paper type Conceptual paper

Introduction

Active engagement with the scholarship of teaching and learning (SoTL) has proved to be a difficult proposition for many senior academics teaching at a university (Boshier, 2009). Academic development of university teachers was introduced with the aim of inducting new entrants to the profession into the discourse of teaching (Gosling, 2009). This is usually through generic courses that take participants through the major concepts of higher education theory (Kandlbinder and Peseta, 2009). However, such generic academic development programmes have not always been viewed positively or made appropriate connections with participants' perceptions of their professional roles. Some programmes have failed to connect to the subject knowledge or to the research orientation of academics on one hand, whilst academics, expecting to receive "tips for teachers", have failed to grasp

the relevance of anything beyond their immediate practical needs in the classroom on the other hand (Cameron, 2003). In response, academic development has become increasingly scholarly, professional and discipline-sensitive over the years, as it has attempted to address perceived weaknesses (Gibbs, 2013). The model of pedagogic frailty explored here takes the evolution of professional faculty development to the next level – offering a personalised and discipline-sensitive approach to teacher enhancement.

Evolution of the concept of pedagogic frailty

The concept of pedagogic frailty emerged from a wider view of a "knowledge structures perspective on university teaching" (Kinchin, 2016a). The emergence of this perspective is informed by a decade of work in academic/faculty development, culminating in the construction of an innovative MA programme that emphasises the key dimensions of professional practice where colleagues need support (Kinchin *et al.*, 2017). This was complemented at the time by the author's immersion in the literature on *clinical frailty* as a result of personal circumstance (Kinchin and Wilkinson, 2016), that provided the analogy for proposing the model of *pedagogic frailty* (Figure 1).

Frailty is seen as a consequence of poor connections between dimensions of the model. For example, where academics in the same institution have different views of the
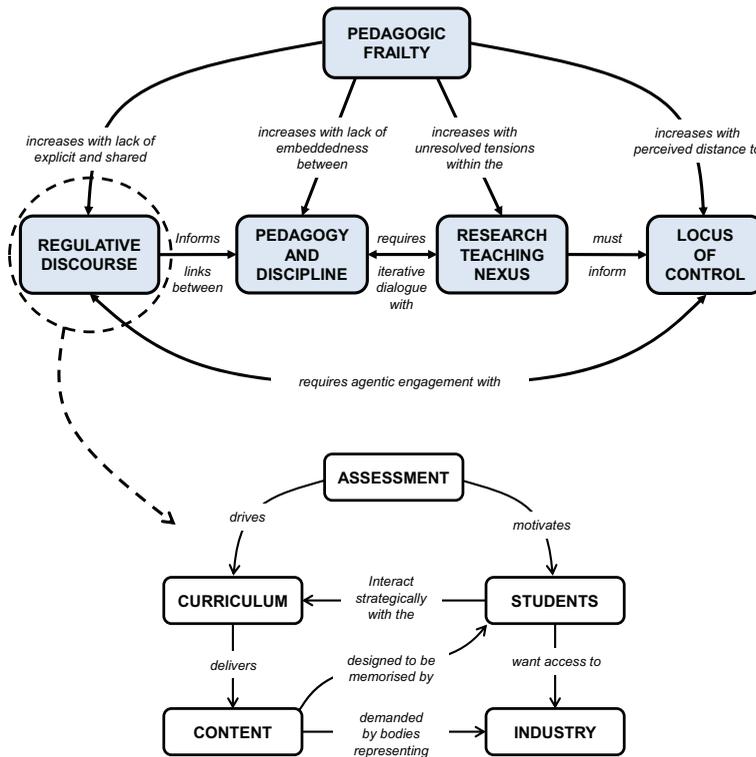
Source: Kinchin (2015, 2016a)

Figure 1.
The overall pedagogic frailty model (above) with (inset below) one academic's view of the regulative discourse dimension

relationship between teaching and research (research-teaching nexus), or opposing values that underpin teaching (regulative discourse), then tensions are likely to emerge. These tensions have been shown to discourage innovation in teaching and result in a conservative maintenance of "safe" or "traditional" practices (Bailey, 2014). Frailty is, therefore, *not* a characteristic of an individual academic, but a feature of the wider educational system that may not function optimally as a result of hidden and unarticulated tensions. Exploration of pedagogic frailty can surface these differences and promote dialogue and mutual understanding so that tensions may be resolved, or at least be better understood.

The frailty model has been tested across a variety of disciplines to see if academics can relate positively to it (Kinchin *et al.*, 2016; Kinchin and Francis, 2017), and to see if the procedure of map-mediated interviews (Kandiko Howson and Kinchin, 2014) can provide a useful frame for a developing academic narrative. These first studies suggest that academics from a wide range of disciplines relate well to the frailty analogy and can recognise factors that both support and impede the development of their teaching practice by referring to the model. The added value of the concept mapping approach is that rather than providing a simple list of factors or attributes that contribute to frailty, the maps indicate dynamic relationships between the elements that better reflect the changing nature of the teaching environment. The quality of the connections between concepts (rather than the concepts themselves) represents the unit of analysis of these maps (Kinchin, 2016b). These dynamic relationships are crucial if the academic is to be able to explore the implications for frailty and possible routes to resilience.

The model has then been further interrogated by inviting a range of international academics to explore the implications of frailty from the gaze provided by their own research, looking at aspects that could be related to particular dimensions of the model (Kinchin and Winstone, 2017). These included, for example, explorations of elements that appear to be under individual academics' control, such as the discourse of teaching (Blackie, 2017; Stevenson *et al.*, 2017; Lygo-Baker, 2017), and critiques of elements that might appear to be more under the control of the institution, such as academic leadership and quality enhancement (Jones, 2017; Land, 2017). These explorations of pedagogic frailty show that the model has currency in stimulating discussion about teaching development from a variety of theoretical and practical perspectives and can be related and integrated with other research traditions. The combined integrative and transformative nature of pedagogic frailty when considering the evolution of teaching practice suggests that pedagogic frailty may be a candidate threshold concept (*sensu*; Meyer and Land, 2003) for university teaching.
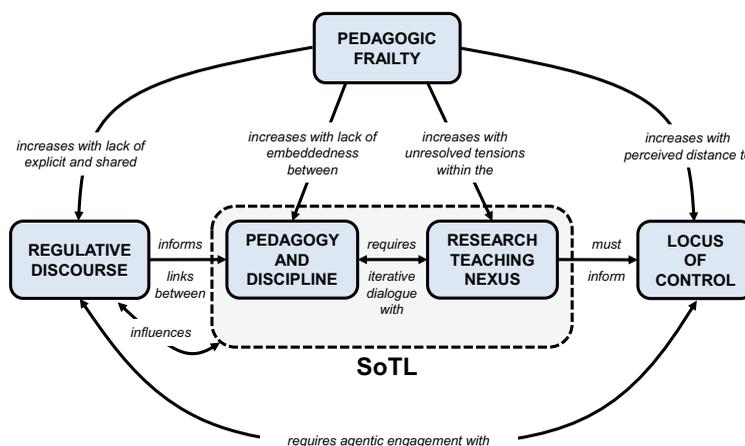
Frailty and SoTL

The concept of frailty has been repurposed (or exapted *sensu*; Larson *et al.*, 2013) from its original context of "clinical frailty" and co-opted for use here to illuminate university pedagogy. This repurposing of disciplinary concepts to enhance understanding of pedagogy offers a mechanism for academics to engage in the scholarship of teaching from the relative comfort of familiar concepts. The application of concept map-mediated narratives offers the opportunity to "sensitize us to exaptive possibilities, which in turn enhance the possibilities of capitalizing on their occurrences" (Garud *et al.*, 2016, p. 19). Visualising the elements of pedagogic frailty as concept maps highlights the connections between facets of the academic role and increases the likelihood of occurrence of exaptive events. Colleagues are able to see connections between disciplinary concepts (such as "ecosystem resilience" or "functional redundancy") and their application in the analysis of pedagogy (Kinchin and Francis, 2017). Reference to familiar concepts and disciplinary language makes the examination of pedagogy less of an alien experience.

For academic classroom practitioners to engage with the SoTL, the typical entry point is often from their disciplinary interests and also their research role. At the outset, the idea of the regulatory discourse (combining the theories and beliefs that underpin teaching) is too abstract, whilst the *locus* of control (including the regulatory frameworks that govern teaching) may feel too remote to be of immediate interest in supporting development. A modified version of the pedagogic frailty model in which the initial location of SoTL activity is indicated to focus on the elements of the model concerned with pedagogy and discipline and the research-teaching-nexus (Figure 2). This places this form of academic development firmly within the cluster of interventions reviewed by Amundsen and Wilson (2012) as having a *discipline focus*. According to Amundsen and Wilson (2012, p. 98), such approaches are based on a series of assumptions:

- teaching is different (at least in part) in different disciplines because the structure of knowledge is different;
- academics identify best with their own disciplinary culture, knowledge and practices and, therefore, disciplinary understanding is the foundation on which to build pedagogical knowledge;
- activities are focused on scholarly discussion among colleagues;
- assessment of impact is informal (e.g. participation in discussions, reflection portfolios and on-going teaching projects);
- it draws on relevant literature (e.g. discipline-based understanding); and
- action research or inquiry focus: individuals or groups of faculties pursue topics of interest.

Characteristic of the stance taken in Amundsen and Wilson's literature cluster that considers a disciplinary focus is the sentiment expressed by Mathias (2005, p. 97), where he considers:

the extent to which the responsibility for the development of new university teachers has been gradually removed from the traditional academic disciplinary communities of practice and placed

Source: Modified from Kinchin (2015; 2016a)

in the hands of education specialists, and whether this has undermined the ownership and commitment academic departments should have for the development of the teaching function within the context of disciplinary cultures and practices.

The articles identified as having a disciplinary focus by Amundsen and Wilson (2012) all took as a starting point that the structure of knowledge varies between disciplines, and that faculty identify strongly with their discipline, both as a teacher and as a researcher. This strong affiliation between the academic and the discipline is exploited in this approach to faculty development. So why is SoTL a "hard sell" as described by Boshier (2009)? If SoTL is to have an effect on changing and developing practice in a long-term and sustainable fashion, it eventually has to be integrated with *all* the elements of the frailty model. SoTL is effectively a dead-end activity if the regulative discourse and the *locus* of control are disconnected from the rest of the model. SoTL needs to be connected to the evolution of the regulative discourse of the discipline, as manifested in the values that underpin teaching. In addition, SoTL needs to be engaged with the *locus* of control if teaching is to be genuinely research-led. There are instances when academics only align themselves with managerial imperatives on a surface level:

> Particularly interesting was the way some respondents managed to cope with the obligations imposed upon them. They found ways to work around these stressful obligations and survived by maintaining their autonomy and academic freedom through demonstrating symbolic compliance or pragmatic behaviour. (Teelken, 2012, p. 287)

In such cases, the institution is developing an environment in which frailty is likely to develop. SoTL is likely to be more successful when the teacher's environment is supported by a shared values literacy (as described by Barnes, 2014) and where there is a more distributed model of leadership (Jones, 2017).

The importance of map quality
The first thing colleagues are asked to do when exploring frailty is to produce concept maps of each of the dimensions of the model to summarise their perspective (Kinchin *et al.*, 2016). This is typically undertaken as a map-mediated interview with an academic developer. The maps that are generated as frames for the academic narrative need to be of high quality – tending towards "excellent" where possible. Excellence refers to maps that only include pertinent information and are as succinct as possible whist using linking phrases that offer the greatest possible explanatory power. Characteristics of excellent maps that can support dialogue and reflection are given in Figure 3. Maps that are too big (i.e. competent, but lacking focus) will lack clarity and will not be useful to scaffold developing narratives. However, it has to be expected that even under the guidance of an expert mapper, some initial maps that emerge from map-mediated interviews will be "competent maps" and will only be focused and refined after a process of reflection by the interviewee. It should be noted, however, that expertise is not denoted by the increasing size of the map. Excellent maps can act as a prompt and a frame for a developing personal narrative. The maps are portable and malleable: able to accommodate change and refinement over time.

Rhizomatic understanding of Frailty
Academic development initiatives reviewed by Amundsen and Wilson (2012) that emphasize academic development as a *process* do not typically specify particular outcomes, but rather highlight learning that may result in different outcomes for different faculty members or multiple outcomes for an individual faculty member. The assumption in these initiatives is that engaging in the process (reflection, scholarly discussion and critique,
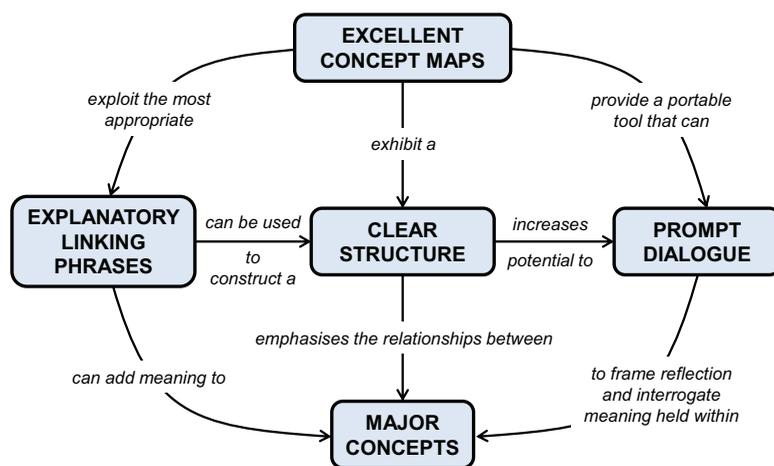
Figure 3.
Features of an "excellent" concept map summarised as a concept map

action research or inquiry) will lead to changed thinking about teaching and, over time, more effective teaching. The focus is almost always on individual meaning-making. A stated goal in many of these initiatives is to develop and support a questioning orientation to teaching and learning.

To explore a more nuanced acceptance of the complexity of teaching in this personalised context, the concept of the "rhizome" developed by Deleuze and Guattari (2004) has been considered for its utility in higher education by various authors (Gale, 2007; Grellier, 2013; Barnett and Guzmán-Valenzuela, 2017; Charteris and Smardon, 2016). Taken from the botanical analogy of the underground stem such as that found in the ginger plant, the application of the "rhizome" in education refers to systems or structures that are non-linear, a-centred, non-hierarchical, without a single general organising principle and that are continuously making new connections. Whilst a rhizomatic perspective on knowledge management may present challenges to the traditional university that mat be viewed as centralised, linear, hierarchical and singular (Figure 4), it resonates closely with the visual depictions of academics' understanding of the dimensions of pedagogic frailty – as decentralised, non-linear and non-hierarchical. The personal views that academics express of the dimensions within the frailty model offer a multiplicity of views (including life in and out of work), across which there is no single organising principle that might impede the development of connections between any of the constituent elements. Whilst there is an importance for clarity when presenting knowledge structures for analysis (Figure 3), there is no "correct" structure or "goal" structure to which academics should aspire.

In applying Deleuze and Guattari's philosophy to transitions in higher education, Taylor and Harris-Evans (2016, p. 3) offer a lens that can be adopted to consider academics' perceptions of frailty as it develops through the emergence of their reflective narratives. They state that this lens does not position academics:

As being on a forward-moving conveyor-belt punctuated by critical incidents. It does not work with deficit models of transition oriented to "squeezing" [academics] into pre-existing (and often inflexible) institutional goals and established academic practices, or "squaring up" [academics] into the preformed identity of the viable academic subject. Such practices of acculturation and alignment, we think, fail to accord due recognition to the multiple differences of [academics'] lived and embodied realities of transition, and are even less able to celebrate the differences that each

Figure 4.
A comparison of
arboreal and
rhizomatic
perspectives of
knowledge
management in the
university
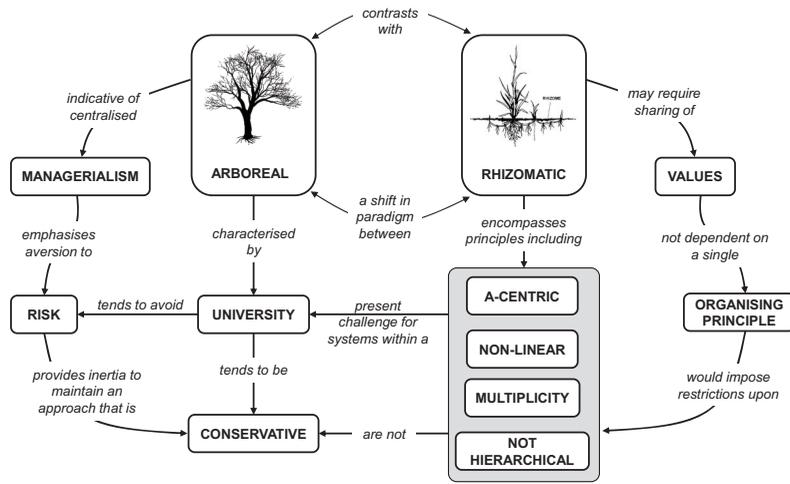
[academic] brings. The approach we elaborate [. . .] reconceptualise[s] transition as an entangled, nonlinear, iterative and recursive process, in which [academics] travel in irregular ways through the various landscapes of their experience (university, family, work, social life) and bring those landscapes into relation with each other.

The rhizomatic view contrasts with the traditional view that is sometimes called the "arboreal view" which uses the counter-posed metaphor of the tree, which:

Represents the stable structure that changes incrementally, using its resources to grow vertically in order to dominate its surroundings but remaining firmly rooted in its position, Rhizomes on the other hand are characterised by speed and direction and seek to dominate by spreading horizontally into clear spaces where their path is typified by twists and turns and are devoid of a clearly defined centre, point of origin, or culmination. Rhizomes are always in the middle – in the process of becoming, passing between stable structures. (Reardon *et al.*, 2005/2006, pp. 162-163)

In addition, the rhizomatic lens may help make sense of organisational activities through the analysis of academics' personal perspectives of the various dimensions of the frailty model. As explained by Reardon *et al.* (2005/2006, p. 163):

Rather than taking the dominant or outwardly obvious objectives of the organisation as the focal point, the driver of actions of individuals and subgroups need to be explored. The points of internal inconsistency, contradiction and conflict that individuals and groups seem oblivious to, need to be surfaced – not to be "fixed" as if they amount to some form of error, but to understand the "flows" that lead to revolutionary change.

In conclusion

Pedagogic frailty provides a frame against which senior academics can construct their own personal narrative to help articulate their philosophy of teaching on the way to developing a more sophisticated and integrated perspective of the values that underpin their professional role. If senior colleagues cannot articulate their views clearly, they will not be able to guide and mentor junior colleagues. When academics do not share a common set of values, then there is the potential for the development of frailty within an institution. The consequence of frailty is the maintenance of conservative methods of

teaching that may no longer be fit for purpose, and the development of unproductive tensions between different parts of the institution. The exploration of pedagogic frailty is supported by the development of excellent concept maps to summarise views of the main dimensions within the model. These act as a dynamic prompt and a frame for the development of an emerging personal narrative. In the absence of such a frame, many colleagues find such a personal and reflective activity to be alien. The model and the method of exploring frailty are embedded within a conceptually well-developed theory of rhizomatic learning that complements the idiosyncratic needs of academics who will each start and end their professional learning journeys at different points. However, the common methodology allows academics from different disciplinary backgrounds to share their perspectives and enter into a productive interdisciplinary dialogue across an institution.

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About the author
Ian M. Kinchin is Professor of Higher Education in the Department of Higher Education. Ian holds a BSc and MPhil in zoology from the University of London and a PhD in science education from the University of Surrey. His current research interests are focused on the development of the concept of the "expert student" through the application of concept mapping, as part of an authentic pedagogy for Higher Education. Ian has published research in the fields of zoology, science education and academic development. Ian is the editor of the *Journal of Biological Education*. He is a Fellow of the Royal Society of Biology, a Senior Fellow of the Higher Education Academy and is a member of the Governing Council of the Society for Research into Higher Education. Ian M. Kinchin can be contacted at: i.kinchin@surrey.ac.uk