Chapter 17

Mapping the Doctorate:
A Longitudinal Study of PhD Students and their Supervisors

Camille B. Kandiko Howson
King's College London, UK

Ian Kinchin
University of Surrey, UK

EXECUTIVE SUMMARY

This chapter reports on the results of a four-year longitudinal study of PhD students and their supervisors, from which the evidence gained suggests that the students tend to focus on the PhD in terms of a product to be completed (in terms of writing a thesis and peer-reviewed journals), whilst the supervisors tend to concentrate more on the process of learning and scientific development, placing the student's contribution into the wider disciplinary discourse. The structural observations from the concept maps generated within this research are that the students perceive the PhD as a linear structure, whereas the supervisors are more likely to generate a cyclic structure to illustrate the dynamic, iterative processes of research more generally. Further structural elements emerge from the analysis of the maps, indicating the need for holistic understanding of the content, structure, and meanings in concept maps and their relationship with safe spaces for the development of critical thinking.

INTRODUCTION

Doctoral education pedagogy has been a traditionally understudied area (Pearson, 1999; Pearson & Brew, 2002; Walker et al., 2008). Building on research of the visualisation of learning (Kinchin, Hay, & Adams, 2000), the graphical depiction of the components of the underlying conceptual structure can be seen as a natural feature of the doctoral thesis. However, most theses tend to be less visual and more textual in their representations, and so the uncovering of the underlying framework may be more problematic. This study used concept mapping (Novak, 2010) to explore how students and supervisors represented their underlying conceptual frameworks in a visual manner, and how this developed and changed over time. The subsequent question that emerged was whether common features developed and if there were sufficient recognisable attributes to describe 'conceptual structures' within doctoral studies. This would allow for the development of a generic visualisation of conceptual structures to be used as a tool in the supervisory relationship of doctoral studies.

This chapter reports on the results of a four-year longitudinal study of PhD students and their supervisors. The students were all registered in lab-based PhDs at a research-intensive university within the UK. Sequential concept map-mediated interviews were used to gain insight to the students' and supervisors' perspectives on the purpose, content and the process of gaining a doctorate. Part of a larger study, this chapter specifically focuses on changes in underlying conceptual structures, and this may, or may not, coincide with notions of advanced critical and independent thinking, and how mapping the understanding of the content and purpose of a PhD can support the development of critical thinking.

DOCTORAL PEDAGOGY

Research into doctoral education is often government policy-oriented (e.g., HEFCE, 2005, 2001; HEFCW, 2000a, 2000b) on issues such as completion rates, doctorates granted in strategic fields and international recruitment. Another major body of research is designed as advice-focused handbooks for students and supervisors (Phillips & Pugh 2005; Trafford & Lesham, 2008; Whisker, 2004). In terms of education, much research and practice in the UK, and other countries, focuses more on the fitness of purpose of the doctoral qualification across disciplines and fields (Bourner, Bowden, & Laing, 2001; Costley & Lester, 2011; Denicolo & Park, 2010; Park, 2005; Roberts Report, 2002) to guide program development and structures.

However, recent scholarship has begun to emerge around the notion of doctoral pedagogy, but sometimes with a focus on what it could do rather than offering empirical studies. This includes linking it to the modern knowledge economy through

18 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage: www.igi-global.com/chapter/mapping-the-doctorate/107147

Related Content

Visual Data Mining from Visualization to Visual Information Mining
Herna L. Viktorand Eric Paquet (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 2056-2061).*
www.irma-international.org/chapter/visual-data-mining-visualization-visual/11102

Semi-Structured Document Classification
Ludovic Denoyer (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1779-1786).*
www.irma-international.org/chapter/semi-structured-document-classification/11059

Constraint-Based Association Rule Mining
Carson Kai-Sang Leung (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 307-312).*
www.irma-international.org/chapter/constraint-based-association-rule-mining/10837

Subsequence Time Series Clustering
Jason Chen (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 1871-1876).*
www.irma-international.org/chapter/subsequence-time-series-clustering/11074

The Evolution of SDI Geospatial Data Clearinghouses
Caitlin Kelly Maurie (2009). *Encyclopedia of Data Warehousing and Mining, Second Edition (pp. 802-809).*
www.irma-international.org/chapter/evolution-sdi-geospatial-data-clearinghouses/10912