

ICED 2020 proceedings:

Future-ready faculty: Developing the characteristics of expertise in teaching in higher education

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Abstract

In higher education (HE), “ways of thinking and practising” (WTP) have been considered for many academic disciplines (e.g. McCune & Hounsell, 2005), but less so for the practice of HE teaching. In other professions, WTP is explored through the concept of expertise (e.g. Ericsson et al, 2006). A better understanding of expertise of HE teachers will help inform the enhancement of educational development (Kreber et al, 2005; Saroyan & Trigwell, 2015). This paper proposes a model of expertise in HE teaching based on the expertise literature, empirical research, and reflection on practice. The model is presented as three interacting aspects:

- Pedagogical Content Knowledge (Shulman, 1986)
- Artistry of Teaching: authentic, creative & improvisatory (Schön, 1982)
- Self-determined & purposeful approaches to learning and development (King, 2019)

1 Introduction

Over the last 15 years or so there has been considerable interest in the idea of “ways of thinking and practising” (WTP) in the academic disciplines. WTP goes beyond knowledge and skills to consider “particular understandings, forms of discourse, values or ways of acting which are regarded as central to graduate-level mastery of a discipline or subject area” (McCune & Hounsell, 2005, p. 257). Particular approaches to this have included Threshold Concepts (Meyer & Land, 2003), Decoding the Disciplines (Pace & Middendorf, 2004) and Signature Pedagogies (Gurung et al, 2008). These approaches have provided ideas and tools to support academics to unpack the more tacit aspects of their disciplines and to better articulate and facilitate their acquisition. However, little has been done to explore the WTP of academics as teachers in higher education.

A related approach to WTP less widely used in higher education is the concept of expertise. A significant body of research in a wide range of fields and professions has explored what it means to be an expert that builds on their strong foundation of content knowledge and skills: “...experts have acquired extensive knowledge that affects what they notice and how they organize, represent, and interpret information in their environment” (Bransford et al, 2000, p. 31). By understanding the differences between experts and novices, and between experts and experienced non-experts, it may be possible to identify their ways of thinking and practising. And exploring how experts themselves have learnt and developed may provide insights into approaches to supporting novices to develop expertise (Ericsson, 2017).

In addition, whilst the rhetoric of excellence is widely used in the HE sector and beyond, by definition/derivation it is not achievable by all: “excellence” is the state of being outstanding

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(from the Latin *excellere*: ex – “out, beyond”; celsus – “lofty”). We cannot all stand out from everyone else! For effective educational development, an aim is required that is potentially achievable by all. Here the concept of expertise, being related to notions of process rather than product, is much better suited by definition/derivation (from the Latin *expertus* the past participle of *experiri* – “to try” and also the etymological origin of “experience” and “experiment”).

This paper draws on the extensive literature on expertise, together with a small-scale empirical research study and the author’s 20+ years’ experience in educational development in the UK, to propose a model of the characteristics of expertise in teaching in higher education. This model potentially provides an holistic framework for planning and facilitating educational development, and for motivating colleagues to develop themselves professionally as they continually progress their own expertise (rather than striving for an elusive “excellence”).

2 Characteristics of expertise in teaching in higher education

Consistent achievement of positive outcomes is perhaps the most obvious measure for identifying an expert (Frensch & Sternberg, 1989), but what are the ways of thinking and practising that lead to this? Generic characteristics of expertise that are relevant for all fields and professional comprise the following elements (Glaser & Chi, 1988, summarised in Skovholt et al, 2016):

- High performance in one domain based on subject knowledge and skills developed through study and experience;
- Perception of large meaningful patterns in their domain of expertise, which results in the ability to perform skills faster than novices;
- Automaticity of skills brought about through many hours of practice which can exhibit as an effortless grace or “flow” (Csikszentmihalyi, 1990);
- An approach to problem-solving that is qualitatively different to that of novices, including taking more time at the beginning of a problem to understand it from various viewpoints before attempting a solution;
- Strong metacognitive skills and self-determined / self-motivated development (Ericsson et al, 1993).

Based on observations of highly effective teachers in higher education, self-reflections on my own practice, discussions with participants at various educational development conferences and research with nine UK National Teaching Fellows (King, 2019), it is suggested that these generic characteristics of expertise are manifest in higher education teachers in the ways described below.

2.1 Pedagogical Content Knowledge

The subject knowledge and skills required to teach in higher education pertain to both *what* is being taught and *how* it is taught. To perform effectively as a teacher, one must be able to integrate these seamlessly in order to design and deliver the curriculum. Shulman (1986) described this as Pedagogical Content Knowledge (PCK). PCK, Shulman suggests, also includes the ability to offer students multiple representations of ideas and concepts, and “an understanding of what makes the learning of specific topics easy or difficult: the conceptions and preconceptions that students of different ages and backgrounds bring with them to the learning of those most frequently taught topics and lessons” (p. 7). Thus PCK also includes an element of relational pedagogy that connects us with the second category of expertise in teaching in HE, that of “artistry”.

2.2 *Artistry of teaching*

Schön (1987, page 4) notes that “the problems of a real-world practice do not present themselves to practitioners as well-formed structures.” Hence, having well-established pedagogical content knowledge may not be sufficient to deal with uncertainty and uniqueness of day-to-day teaching and learning situations. Through experience, teachers become more fluent and confident in their skills in the classroom (automaticity of skills), they are able to recognise and anticipate common issues or behaviours (pattern recognition), and they can draw on a wide range of evidence and feedback in the design and delivery of curricula (problem-solving). But teaching also requires an element of improvisation: the ability to respond rapidly to unplanned situations. This in itself requires elements of intuition, as well as relational skills (Pearce & Down, 2011), to quickly build rapport and manage uncertainty within a new or established classroom environment. The characteristics of expertise in teaching, therefore, must go beyond PCK to include “an epistemology of practice implicit in the artistic, intuitive processes which some practitioners do bring to situations of uncertainty, instability, uniqueness and value conflict” (Schön, 1982, p. 49).

2.3 *Self-determined & purposeful approaches to learning and development*

Many hours of practice are important for the development and maintenance of expertise. Here practice can mean rehearsal and also the repetition of a professional activity (professional practitioners encounter similar situations again and again) (Schön, 1983, p. 60). However, simply clocking up hours of experience and practice is not enough to develop expertise. Expert practitioners engage in “deliberate practice” (Ericsson et al, 1993) or “progressive problem solving” (Bereiter & Scardamalia, 1993) to identify areas for improvement and to work on these drawing on feedback and other evidence to inform their practice. The learning and development of expert teachers in higher education was explored through semi-structured interviews with nine UK National Teaching Fellows (using achievement of this accolade as a proxy for expertise) (King, 2019)². Professional development in higher education is sometimes perceived as simply a list of activities (training, workshops, conferences etc.) that have been endured. However, the National Teaching Fellows talked about their learning and development in a very different way, describing it through the lens of changes made to their learning and teaching practice. It is suggested, therefore, that professional development for teaching in higher education be reconceptualised as a story rather than a list, and as “a self-determined and purposeful process of evolution of teaching and learning approaches informed by evidence gathered from a range of activities” (King, 2019 p. 4).

3 *Conclusions*

This model of expertise provides an opportunity to consider approaches to educational development much more holistically, in ways that encompass the full range of knowledge, skills and behaviours required to teach and facilitate learning effectively in higher education. As well as supporting academics’ understandings of pedagogy, the more intangible skills of performativity, improvisation, rapport, problem-solving and managing uncertainty must be recognised, acknowledged and nurtured. In addition, for some academics, a cultural/mindset change may be encouraged in order to engender the idea of continuing professional development that is undertaken proactively as an integral part of the design, delivery and enhancement of curricula, rather than being perceived as an inconvenient add-on.

² Summaries of the interview transcriptions and other resources are available on the author’s website at <https://www.drhelenking.com>

Acknowledgements

With many thanks to the nine interviewees for their time, honesty and insights, and to the UK Staff & Educational Development Association (SEDA) for the small grant which enabled this research to take place.

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