

## **Plurality and difference in the development of teachers' understanding of assessment in higher education.**

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Improvement of teaching and learning is central to academic development in higher education. Previous literature has advocated a conceptual change approach to development (Gibbs and Coffey, 2004) as there is evidence that how a teacher conceives of or understands particular aspects of teaching has implications for their practice (Trigwell and Prosser, 1996) and student learning (Trigwell et al., 1999). Although there is inference that development involves coming to understand teaching as more student-centred, there is limited empirical data for this. Some studies have identified different ways in which teachers described their experiences of development (Åkerlind 2007) or have investigated the impact of teacher development programmes (e.g. Butcher and Stoncel 2012). However, very few studies have monitored teacher change over time in relation to their conceptions and approaches to teaching (Martin and Ramsden 1992; McKenzie 2002) and the influences upon their development (Sadler 2012). A point of debate in terms of teacher development is the extent to which conceptions guide practice or practice acts as a catalyst for conceptual change (Devlin 2006; Sadler 2012).

Although there has been considerable research in relation to teachers' conceptions of teaching, less attention has been paid to understandings of assessment and the associated practices. This is surprising as assessment in higher education is at the foreground of much contemporary policy and discussion in the sector (Nicol, 2010). Work that has been done indicates clear parallels with the research on conceptions of teaching (Samuelowicz and Bain, 2002). Recently, Postareff *et al.* (2013) have identified conceptions that range from reproductive to transformational understandings of assessment. Despite variation in conceptions, the teachers did tend to describe the use of practices that were more traditional in nature (e.g. final exams).

Literature that has considered academics' development of conceptions and practices in relation to assessment is diverse in terms of focus and approach. For example, there have been studies that have: investigated how being involved in research into assessment and feedback supported teachers' development in their understanding of formative assessment (Dixon and Haigh 2009); analysed staff dialogue to explore resistance during an intervention to change assessment practice (Deneen and Boud 2014); used case study design to consider the relationship between thinking and practice through experimentation with alternative assessment strategies (Offerdahl and Tomanek 2011). Some interesting findings emerge from these studies that echo the work specific to development of conceptions of teaching. Offerdahl and Tomanek (2011) found that there was some development towards more sophisticated thinking about assessment but this did not result in revision of future practices. However, often the highly specific contexts make transfer of the findings into many higher education settings problematic (Dixon and Haigh 2009; Offerdahl and Tomanek

2011). Therefore the aim of the current study is to explore the development of higher education teachers' development of understanding and practice in relation to assessment more widely.

Concept mapping offered a potentially fruitful approach for considering conceptual development over time (Hay, 2007, 2008). Dialogic concept mapping is an active construction process as it provides multiple opportunities for participants to review maps complemented by interviews in which the reasoning behind the maps can be discussed. Data were collected from nine members of staff from a range of disciplines in two UK universities on two occasions, one year apart. Participants were guided through the construction of an initial concept map on assessment prior to a one-to-one semi-structured interview during which understandings of assessment and assessment practices were discussed and embedded within the concept maps. On the second occasion the participants created a new map and the interview explored their development. Analysis focused on comparison between round 1 and 2 data using a broadly interpretivist, qualitative approach, which involved immersion in the data, describing and condensing the essence of each individual's development. Key changes in understanding and practice were identified from structures of the maps, additional concepts and practices incorporated into the maps and themes in the interview that had previously not been present.

Overall, there was little evidence of significant transformation. However, there was smaller scale evolution as individuals developed in subtly different ways. For some individuals, such development tended to involve the foregrounding, confirming or adjustment of an existing understanding and practice that appeared to align with one another. For example, Philippa emphasised the importance of collaboration in assessment. This concept became more apparent on her map and she also described small, related adjustments to practice. Offerdahl and Tomanek (2011) identified more sizable change in assessment thinking, however in their study teachers were exposed to explicit development activities and originally described the purpose of assessment as gathering information for grading. Although to varying degrees, the participants in the current study referred to assessment from both a measurement and learning-orientated point of view. Therefore it could be argued that our data provide insights into the next stage of development in terms of understanding assessment and it would be reasonable to suggest that this is likely to be longer-term and less drastic in nature.

Other participants introduced new practices to enhance assessment, for example the use of tablet technology. However, due to the contrasting intentions and understandings of assessment, this was implemented in substantially different ways. For Eddie, tablets were used to support students in making judgements about their own work, whereas Olga used the technology to save time and manage staff workload. This provides some support for Bakkenes *et al's* (2010) supposition that different teachers who are engaged in what on the surface appear similar activities, may think differently and therefore achieve very different outcomes.

One participant stood out in terms of their development of assessment practice. Paul reported the use of a learning-orientated formative peer review activity, which stemmed from a variety of influences including the intention to reduce marking load and developing new ideas with a colleague. This was a significant shift from the practices he employed previously and appeared incongruent with his original understanding of assessment. However, the change in practice did not appear to influence the development of his understanding. This is a further example of the complex interplay between thinking and practice. At times thinking and practice were developed coherently and in tandem, at others times development was incongruent and predominantly practice related. The study appears to support Devlin's (2006) argument that a purely a conceptual change approach to teacher development maybe an oversimplification.

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