CETL-MSOR Conference 2015

Michael Cross: Beyond these shores: The conundrum of the successful graduate who experiences difficulties with maths.

Graduates can be considered to have successfully navigated the education system – they have achieved a "threshold requirement" for employment (Durrani and Tariq, 2012, p. 3). Nevertheless, a great many graduates will have had (and may still have) significant problems with maths at some point (Department for Business Innovation and Skills, 2012). Moreover these maths problems are associated with skills that are largely part of pre-university education. However, regardless of the academic 'level' of the maths skills in question, they are frequently recognised as an integral part of a given discipline, such as physics, chemistry and economics. Beyond that, there are also a range of disciplines that have close links with professional bodies or regulatory bodies that mandate specific maths-skills elements as part of the degree programmes and require evidence of mathematical attainment before recognising members. For example Chartered Engineers, Teachers (QTS), Registered Nurses (NMC), Pharmacists (RCP), Radiographers (SOR) and Psychologists (BPS).

This builds up a complex, and possibly contradictory, picture of relatively large numbers of academically successful individuals qualifying to enter graduate professions which require evidence of maths skills capability. Yet the skills in question are relatively low in level and the graduates in question have well documented problems with these exact skills. Yet, despite this, it appears that these graduates go on to become successful in teaching, nursing, pharmacy, psychology, engineering and other professions which require and regulate evidence of these maths skills. Their experience of coping with their maths problems could help others who have not yet completed the trajectory. Whether it be seeking to improve curriculum design or maths skills support, it could be useful to know more about the experience of the people who have emerged as "numerate graduates" (Durrani and Tariq, 2012, p. 3), despite encountering difficulties.

Currently, approximately 10 graduates who fit this profile and who have been working in their fields for more than 5 years, are being interviewed. The largely unstructured interviews are focused around the construction of a maths educational timeline and the stories that it generates (Adriansen, 2012). Follow-up interviews are scheduled in for each participant which are effectively a continuation of the first in-depth interview; allowing the interview process to "take place over an extended period of time" (Yin, 2009, p. 107). This can allow for reflection on the part of the researcher and participant (Hollway and Jefferson, 1997).

There is something compelling about individual's stories and they have been linked with aiding change, or even transformation, in others (Niace, 2013; National Numeracy, 2013; Forrester, 2012). In addition they have been linked with finding the unexpected (Hodkinson and Hodkinson, 1999). There is the hope that the findings can provide insight which will specifically benefit others going through the 'system'. This presentation will consist of a summary of the research approach and intentions and will focus on sharing some of the stories heard so far and considering any implications for supporting current learners in Higher Education.