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Why students leave engineering and built environment programmes when they are academically eligible to continue (0023)

Programme number: H9

Research Domain: Student Experience

Literature review

There is worldwide concern about the number of students graduating from higher education institutions, especially from engineering degree programmes (Burtner, 2005; Doolen & Long, 2007). Much of the literature has been influenced by the work of Tinto (1975, 1993, 1998) in the USA and Yorke (1999, 2000) in the UK, who explored the factors which enable persistence and those which cause students to prematurely leave their degree programmes. A wide range of interacting personal and social factors as well as institutional practices impact on the retention and performance of students (Thomas, 2002), the most commonly reported ones being: academic integration and preparation of students for higher education studies, campus climate which mediates student's academic and social experiences, commitment to educational goals and the institution, financial aid and employment, family support (Swail, 2004; Thomas, 2002), as well as enjoyment, interest and satisfaction with the degree (Bodner, et al. 2005).

The South African context

While student attrition is of concern internationally, the problem is particularly critical in South Africa (Cosser & Letseka, 2010). Within the South African context, there has been very little research into the reasons for student attrition (Scott et al., 2007). The Faculty of Engineering and the Built Environment (EBE) at a research intensive South African university has been increasingly concerned about the cohort of students who are academically eligible to continue but do not return the following year to continue their studies. This study aims to investigate the nature of the reasons for students' premature withdrawal from their degrees. It is argued that understanding these students better could suggest ways in which an institution could help ensure their ongoing progression through their degree.

Theoretical framework

The theoretical framework of Pierre Bourdieu has been drawn on to analyse issues such as choice of institution (Reay et al., 2001; Smyth & Banks, 2012) and student retention (Thomas, 2002) in higher education. In particular, the notion of 'institutional habitus' has been employed to understand the complex process of 'student-institution negotiation' (Ozga & Sukhmandan, 1998, p.320) that occurs as a student progresses through his or her studies. Drawing on this work but foregrounding issues of power ('capital' in Bourdieu's terms), and in conjunction with aspects of Margaret Archer's theoretical framework, this study examines the phenomenon of student withdrawal, through a sociological lens.

The 275 students included in this study were registered between 2006 and 2011 in the Faculty of Engineering and the Built Environment, were in good academic standing, but failed to register for their studies the following academic year. Of these students, 169 simply did not return at the beginning of the following academic year and 106 cancelled their registrations during the year despite being in good academic standing. Fourteen percent of the students contacted responded to the electronic questionnaire, which was developed drawing from some of the findings in the literature as potentially significant to consider in students premature withdrawal from their degrees. It included a demographic section, an open-ended question on the reasons why they did not continue with their degree; a set of questions on whether engineering and the University

was their first choice; whether they discussed their decision to withdraw with anyone; and whether they would return to engineering studies in the future. The remainder of the questionnaire probed the possible academic, financial, personal and social reasons that contributed to their leaving.

Findings

Reflecting on the results allows two categories to emerge. The first has to do with reasons that are internal (or personal) to the student and can be understood as exertions of agency. Here, students are in relatively powerful positions in relation to the university. Some of the students that responded in this study identified a lack of passion, interest and/or enjoyment as the primary reason for their withdrawal. Others noted that they withdrew because of better prospects elsewhere.

The second category relates to reasons over which the student has limited (or no) control and can thus be understood as structural. In such cases, the student is in a less powerful position in relation to the institution. Most of the respondents in this category withdrew because of the pressure of financial constraints or domestic circumstances. Another finding was that one student was surprised that he was included in the survey since he had thought he was not able to continue. While the responsibility ultimately rests with the student, the Institution should make every effort to ensure students are aware of the exclusion rules.

Overall the findings suggest that student's reasons for withdrawing might be complex and may not be easy to articulate for the student.

Discussion and concluding remarks

The sociological notions of structure and agency have been used to distinguish between cases in which students have control over their decision to leave the EBE Faculty and those in which students are dominated by various structural factors. This is helpful in terms of deciding what actions can be taken in order reduce the number of students leaving in good academic standing.

There certainly are areas in which institutions can make a difference. Perhaps the most hopeful area is with regard to the possibility of assisting students that leave because of financial constraints. Another area concerns better dissemination of information about disciplinary content which may help to reduce the number of students who leave because their interests change. The target audience in this case would be potential applicants, university open days and other publicity occasions. Another area where this provision of information may be appropriate is in correspondence with applicants. Although it may be assumed that the students who apply are suitably informed, the data shows that a number of students leave after deciding to give their second choice 'a try'. Providing more detailed information to those who show interest in an EBE degree might help students make informed *alternative* choices. Improving the alignment between their interests and the course of study chosen may improve their staying power and thus make them less likely to leave because their interests change.

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