

PROMOTING STUDENT' SELF-MOTIVATION THROUGH EXPLORATION OF SELF AND PROFESSION: A PILOT STUDY WITH FIRST-YEAR STUDENTS

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BACKGROUND

Facilitating student engagement and motivation is particularly difficult within compulsory foundation units. This pilot study was undertaken in a first year calculus-level physics unit with a significant failure rate thought to relate to a lack of engagement. The study explored a possible solution: namely, encouraging students to take ownership of their learning by challenging them to explore its relevance to self and career.

AIMS

The study aimed to determine student self-efficacy and career preview in relation to their intended profession, and to determine the extent to which the students felt the unit was relevant to their future careers. The overall aim was to create new insights into the support and teaching approaches needed for students to succeed in this and similar foundation units.

DESCRIPTION OF INTERVENTION

This study focused on a first year foundation unit in physics. The study sample of 59 students was invited to participate as part of their enrolment and could withdraw at any time. Activities were delivered in the form of an interactive, two-hour workshop that featured self-reflection, group work, and group discussion.

DESIGN AND METHODS

The study was informed by the theoretical framework of 'possible selves' (Markus & Nurius 1986), which advocates that people are influenced by their awareness of possible future selves that are perceived as desirable, disconcerting, and/or achievable. The data were analysed using content analysis and a-priori codes developed from a related project (Bennett, 2012). Three questions underpinned the study:

1. How do students characterise an engineer?
2. What differences do students perceive between themselves and their definition of an engineer?
3. In what ways do students think that the learning in this unit will contribute to their development as engineers?

RESULTS

Analysis of students' responses revealed them to be troubled by their lack of insight about the characteristics of engineering work. Students also perceived gaps between the attributes of engineers and their own personal attributes, some of which were positioned as personality-based rather than skill-related. Further, some students did not understand the relevance of the foundation unit to their future engineering work.

CONCLUSIONS

This study draws attention to the need for educators to facilitate the development of students' career preview and to enhance their motivation to learn by linking career relevance with each unit of study. First year foundation units emerge as a logical site for this to begin, given that students need to "develop their own authentic voices at the outset of their professional education" (Beattie, 2000, p. 17). Initial results align with the findings of other studies, which have concluded that the ability of students to evaluate themselves in relation to their possible futures is a critical and neglected aspect of higher education (Feather, 2000; Bennett, 2012).

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