0108

An exploration of variables that influence academic outcomes for final year secondary students and first year tertiary students.

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Background

Compared to those with secondary level qualifications, people without formal secondary level qualifications experience more unemployment over their lifetimes (OECD, 2006) and have a lower median income than their more qualified peers (Statistics New Zealand, 2007). The benefits of successfully completing a tertiary qualification are also self-evident, as tertiary qualification holders are more likely to be in sustained employment, and have an average income 29% higher than those with only secondary qualifications and 95% higher than those with no formal secondary qualifications (OECD, 2006). As such, it is understandable that a large amount of research has been conducted into the factors that affect students' engagement, retention and achievement both at secondary and tertiary levels.

Previous research on student factors has tended to focus largely on the role of student intelligence (Busato, Prins, Elshout & Hamaker, 2000), in addition to demographic variables such as sex (Sammons, 1995), ethnicity (Harkess, Wang & Parkin, 2007) and socio-economic status (Woessmann, 2004). There has also been a focus on attitudinal variables; both the attitude of the student and the attitude of their family and peer group. Studies have found relationships between student achievement and parental involvement in their child's education (Clark, 2002), and also between achievement and parental attitude toward education (Walberg & Paik, 1997). Likewise, strong correlations have been found between students' attitudes to learning and their academic outcomes (Heaven, 1990, Busato et al., 2000).

Some studies have suggested that personality variables provide incremental validity over and above measures of attitude and intelligence (Busato, Prins, Elshout & Hamaker, 1999). These studies often use the Big Five measure of personality (Costa & McCrae, 1992), with the strongest relationship generally being found between academic achievement and student conscientiousness (De Raad, 1996). Time management skills have also been found to influence student achievement (Trueman & Hartley, 1996).

Research Questions

The current longitudinal study aims to identify the variables that influence academic outcomes for final year secondary students and first year tertiary students, and then examine the relative influence of these variables in the two different academic settings. The study will examine time management and student study strategies in order to assess whether there is a moderating effect between student personality and attitude, the strategies they use, and the relative effectiveness of these strategies.

Methods

In 2008, 655 high school seniors completed a questionnaire that comprised a number of questions about student demographic information, such as sex, ethnicity, socio-economic status and family structure, and a number of scales measuring the variables previously discussed, including personality, intelligence, parental involvement, student value of education, student view of intelligence, and student use of a number of study and learning strategies, including short and long-term time management, critical thinking and cooperative learning. Participants also gave consent to the researcher accessing their 2008 examination results.

455 of these students qualified to enter university on the basis of their 2008 examination results. Of these students, 197 are attending the local university in 2009. These students were contacted via email and invited to participate in a follow-up study. 62 students participated in the study by completing a questionnaire similar to the one they had previously completed, and by giving the researcher permission to access their 2009 university GPA.

Frame

Multiple regression found that a number of variables significantly predicted academic achievement in final year secondary school, including sex, intelligence, personality (conscientiousness, openness to experience), and use of critical thinking skills.

Data analysis of university results is currently being conducted. Correlations will be performed to determine the variation in responses between 2008 and 2009. Multiple regression will be used to determine the relative influence of the variables measured on academic outcomes at a tertiary level.

Research findings

If there are differences in the factors that influence academic success in secondary school compared with a tertiary setting, this has implications for the education and guidance services that should be offered in these settings. Secondary schools may need to consider the support that students require to make a successful transition to tertiary study depending on the relative usefulness of different strategies in the two settings.