Success Predictors in Graduate Online Learning

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INTRODUCTION

Student attrition, although some to be expected, comes at a high cost. Failure to complete studies is recognized as a personal loss for the individual, an economic loss for the universities, and an intellectual loss for society. As educational institutions increasingly develop and support online education programs to serve the instructional needs of adult population in a growing and ever changing global economy, student attrition becomes an even more significant issue. While national statistics for completion rates of distance education students are not easily available, dropout rates are believed to be 10-20% higher than for in-person learning (Carr 2000; Frankola 2001). Some scholars have indicated that, depending on the program, dropout rates for distance education are much higher, in the 30-50% range (Moore & Kearsley, 1996; Lorenzetti 2002). Whatever the attrition rate is, the reality is that too many students do not persist in their endeavor to achieve a degree in higher education although they made a conscious decision to enroll in higher education and took the steps needed to attend graduate school. While extensive research efforts have been used to develop and improve theoretical models of student retention or persistence, a concern of many administrators remains the ability to predict as early as possible the likelihood of a student dropping out of school. In light of research findings that the strongest predictor of graduation is a student's conformity with the characteristics of those who have graduated from the same institution or program previously (Ash, 2004; Mansour, 1994), the purpose of this chapter is to determine the profile of students who are being retained and those who drop-out, by employing data obtained as early as possible in the application and matriculation process.

BACKGROUND

Instruments of Prediction

Institutions routinely collect a broad array of information on their students' backgrounds, socioeconomic status, past academic achievement, social involvement, and even personal characteristics. These factors usually align well with the major theoretical models of student retention (Ash, 2004; Astin, 1984; Bean, 1985; Mansour, 1994; Tinto 1987, 1993). However, as useful information is provided by many of these data sets, there is still a need to further discover and use this knowledge. For instance, Johnson (1997) suggests that each institution should use institution and program specific assessment data to develop its own predictor equations. By comparing the traits of past dropouts with the traits of incoming students, institutions will be able to identify those who fit a high-risk profile.

Several researchers contend to make institution-specific predictions about retention and attrition based upon the increasing amount of student assessment data that are being collected by institutions of higher education (Seidman, 1995; Johnson, 1997; Murtaugh, Burns & Schuster, 1999). Their research indicates that analysis of readily available student data specific to a particular university and program can, indeed, be a valid predictor for student persistence and retention. This chapter, therefore, employs the analysis of secondary data to examine the influence of student characteristics on persistence in an online doctoral leadership program. In the causal-comparative, ex-facto study, a logistic regression analysis was used to predict retention probability and identify student profiles with a higher likelihood of leaving the program prematurely.

The sample for this study included doctoral students who enrolled in a multi-disciplinary online doctoral program in organizational and in strategic leadership at a private graduate university. Data for this study were collected from students who entered the program beginning in 1997 to present and have since either dropped out or graduated. The subjects of this study are careers professionals in various for-profit and non-profit organizations and range in ages from mid-twenties to late fifties. A total sample size of 303 students represented the full population of incoming students for the doctoral program out of whom 179 graduated and 124 attrited. In the graduated group, 113 were male and 66 were female. In the attrited group, 86 were male and 38 were female.

The literature review provided the justification for the selection of the independent variables used in the study. Each independent variable chosen has a theoretical relationship to retention. All data are measures of characteristics, attitudes, skills and values formed prior to enrollment. Graduation, an accepted standard of academic achievement, was used as the dependent variable in exploring the study questions. By utilizing the institution's database system, the following student demographic data was obtained and used as independent variables in this study:

- Gender
- Master's Level Grade Point Average (MGPA)
- Application Summary Score (APSS)
- Critical Thinking - measured by the Watson Glaser Critical Thinking Assessment (WGCTA)
- Effective Leadership Behavior - measured through the Leadership Practices Inventory (LPI)
  - Challenging the Process (LPI-CHALL)
  - Inspiring a Shared Vision (LPI-INSP)
  - Enabling Others to Act (LPI-ENAB)
  - Modeling the Way (LPI-MODL)
  - Encouraging the Heart (LPI-ENC)
- Psychological Type - based on the Myers-Briggs Type Indicator (MBTI)
  - Extroversion (MBTI-E)
  - Introversion (MBTI-I)
  - Sensing (MBTI-S)
  - Intuition (MBTI-N)
  - Thinking (MBTI-T)
  - Feeling (MBTI-F)
  - Judging (MBTI-J)
  - Perceiving (MBTI-P)

Each of these variables can be associated with the concept of persistence and relate to characteristics that already existed at the time of matriculation of the student. The justification of including the LPI as well as MBTI in the study will be addressed later in the chapter. While the list of characteristics associated with the concept of persistence is far more extensive, this group begins to offer insight about the significance of some of these selected variables for persistence for online doctoral leadership studies programs. The remainder of this chapter discusses the findings and implications of the study in greater detail.

MAIN FOCUS: FINDINGS AND IMPLICATIONS

Critical Thinking

Critical thinking is one of the skills that have been linked logically as well as intuitively to academic achievement and success. Additionally, research has established a strong relationship between critical thinking skills and various measures of academic performance (Behrens, 1996; Facione et al., 1998; Steward & Al-Abdualla, 1989). Therefore it was expected that critical thinking skills, as measured through the Watson-Glaser Critical Thinking Assessment (WGCTA) (Watson & Glaser, 1980), would be a significant predictor for academic retention in this study as well.

While critical thinking skills did not qualify as significant predictor for student persistence, this research showed that those that do persist have consistently higher critical thinking skills. This indicates that critical thinking skills are in fact a valuable and necessary asset for students enrolled in online doctoral leadership studies programs, and may have accounted, at least in part, for success and persistence in the program (Jenkins, 1998).

Effective Leadership Behavior

Research suggests that effective leaders demonstrate a high level of self-regulation over their abilities to fulfill the responsibilities of their position, to attain predetermined goals and to stay committed to a task, regardless of the circumstances or difficulties involved (Holst, 1990). Research has shown that self-regulation, deeply intertwined with the concept of self-efficacy,

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