Non-Cognitive Factor Relationships to Hybrid Doctoral Student Self-Efficacy

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ABSTRACT

Statistical analysis of data gathered from 139 healthcare doctoral students revealed three key findings regarding non-cognitive factor relationships to hybrid doctoral student self-efficacy between online (web-based) and on-campus course components. First, student experiences significantly differed between online and on-campus course components for task value and faculty and peer support. For these factors, on-campus experiences were perceived significantly more positively than online experiences. Secondly, both online and on-campus experiences with task value, faculty and peer support, and boredom and frustration were correlated with self-efficacy: when students experienced high levels of either task value or faculty and peer support, self-efficacy increased; however, when students experienced high levels of boredom and frustration, self-efficacy decreased. Finally, only online task value positively predicted self-efficacy. These findings demonstrated the significant impact of non-cognitive factors on student success and carry implications for successful hybrid teaching and learning. Social cognitive theory provided the framework for the quantitative, non-experimental design.

Keywords: Boredom, Doctoral, Frustration, Graduate, Hybrid, Self-Efficacy, Social Cognitive Theory, Support, Task Value

HIGHLIGHTS

a. Social cognitive theory provided the study's theoretic framework.
b. Survey data was collected from 139 non-traditional (hybrid) doctoral students.
c. IVs were task value, faculty and peer support, and boredom and frustration.
d. Online and on-campus IVs were correlated with self-efficacy (DV); online task value predicted the DV.
e. Educators should consider non-cognitive factors (particularly online task value) towards achieving student success.

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BACKGROUND

According to the Council of Graduate Schools (2008), doctoral completion data indicated 40-60% of all students who begin traditional research-based doctoral degrees completed those degrees. The study revealed six factors that affected student outcomes: selection of students, mentoring, financial support, program environment, research mode of the field, and processes and procedures (2008). While these findings supported the role of non-cognitive factors on student persistence within traditional doctoral education, limited research currently investigates these factors within non-traditional doctoral education, which programs have shown potentially higher attrition rates than traditional programs (Terrell, 2005).

Euzent, Martin, et al (2011) identified unique challenges associated with non-traditional education, such as a higher withdrawal rate regardless of course quality. Because non-traditional education poses such unique challenges, between-group comparisons (such as: Nolot, 2011; Marchand & Gutierrez, 2012; Cohen, Carbone, & Beffa-Negrini, 2011) are less generalizable than within-group research for non-traditional populations (Artino (2009)). As a result of the limited relevant research and the unique challenges of non-traditional education, there is a need and an opportunity to expand research within non-traditional doctoral education, including online (web-based) and hybrid (online and on-campus) academic models.

INTRODUCTION AND THEORETIC FRAMEWORK

Expanding research into the non-traditional (hybrid) doctoral environment, this study built upon Artino’s (2009) findings and included variables for student perception of task value, boredom and frustration, faculty and peer support, and self-efficacy. The objectives of the study were to expand upon previous higher education research and to contribute towards filling the knowledge gap for non-traditional graduate education by providing administrators and faculty with information to improve educational effectiveness and student success. Taking place at a US graduate institution, study participants included clinical and research-based doctoral students who completed at least one hybrid doctoral course.

As developed from Bandura’s (1989, 1991) cognitive and social learning theories, the theoretical framework for the study was social cognitive theory. Central to this theory is individual belief systems and how individuals internally translate contextual factors, such as social interactions, observations, and personal experiences. Andragogical principles describe the necessity for perceived usefulness (task value) in adult learning (Knowles, 1975; Conaway, 2009) and expectancy-value theory explains how student participation is driven by the expectation of value and potential achievement (Murphy, 2006; Wigfield & Eccles, 2000), providing additional support for social cognitive theory. The independent variables of the study were faculty and peer support, task value, and boredom and frustration.

As described by Hsieh, Sullivan, & Guerra (2007); Zajacova, Lynch, & Espenshade (2005); Kitsantas, Winsler, & Huie (2008); Davidson, Beck, & Milligan (2006); Richardson, Abraham, & Bond (2012); and Lynch & Dembo (2004), high levels of self-efficacy may predict student success and persistence. According to Bandura (1989), “People’s self-efficacy beliefs determine their level of motivation, as reflected in how much effort they will exert in an endeavor and how long they will persevere in the face of obstacles” (p. 1176). Because of the alignment between social cognitive theory and the proven influence on student success and persistence, self-efficacy was select as the dependent variable for the study.

In addition to the aforementioned independent and dependent variables, covariates (e.g., course grade and demographics) were also included in the analyses.
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