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The Relationship between Multifaceted Motivational Factors and Academic Achievement

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Abstract

The United States has yet to reach the top international ranking in college degree attainment among young adults. The study explored which Reiss basic desires of motivation predict undergraduate academic achievement. The bivariate ordinal logistic regression results indicated a significant relationship between four motivational factors (curiosity, order, status, and vengeance) and cumulative GPA. The multivariate ordinal logistic regression results indicated a significant relationship between three motivational factors (order, vengeance, and physical exercise) and cumulative GPA, but not between gender, age, and cumulative GPA. Replication of the study may inform educators on how to use motivational factors to identify low-achieving students.

Completed Research

Problem

College completion is a national educational issue. Recent statistics have indicated a substantial decline in the United States' international ranking for students' completion of at least an associate degree since 1990. Taking into consideration the national issue, there is a gap in knowledge on what motivational factors associate with different levels of academic achievement within a theoretical framework that is goal-oriented and personality-trait specific.

Purpose

The purpose of quantitative cross-sectional study was to better understand which Reiss (2009, 2013) basic desires of motivation predict undergraduate academic achievement. An additional purpose of this study was to determine which basic desires of motivation, among gender and age groups, predict cumulative grade point average (GPA).

Significance

- Assist low-achieving college students learn how best to manage particular behaviors and personality traits so that they can either avoid too much satisfaction of weak motivational drives or seek more satisfaction of strong life motivational drives, which put them at risk for completing an associate's degree (Mengel, 2014).
- Aid students and instructors in targeting effective strategies for improving the success of probationary students whose motivational profiles negatively affect their GPA scores (Reiss, 2009, 2013)
- Help academic administrators identify which first-year community college students need extra assistance or more challenging endeavors by using their motivation profiles as indicators of either low or high academic achievement.

Theory or Framework

The **Sixteen Basic Desires of Motivation Theory's** a theory of motivation proposed by the late Steven Reiss, Psychology and Psychiatry professor emeritus at the Ohio State University (Reiss, 2004, 2013) The primary assumption of the theory is that there are fundamental needs, values, and drives (basic desires) that motivate a person. These basic desires are innate, universal, deeply imbedded in human nature, and results in goal-orientated behavior. Thirteen out of the 16 basic desires, relevant to academic achievement, include the following: Curiosity, Family, honor, idealism, independence, order, physical Activity, Power, Social Contact, Status, Tranquility, And Vengeance.

Relevant Scholarship

Relationship found between first-year college GPA and timely degree attainment within a six-year period (Campbell & Fuqua, 2008; Gershenfeld, Hood, & Zhan, 2015).

Research results showed that first-year college students with a low GPA more likely to not complete an undergraduate degree program (Campbell & Fuqua, 2008) Gayles, 2012), Raju & Schumacker; 2015) suggest that.

Relationship found between motivation and timely degree attainment via first-year college GPA (Allen & Robbins, 2010; Slinger, Berg, Fisk, & Hanson, 2015).

Relationship found between Motivation and GPA among a diverse population of undergraduate college students (Krumrei-Mancuso, Newton, Kim, & Wilcox, 2013; Richardson et al.,2012).

Future research recommended on what motivational factors associate with academic achievement within a goal-oriented, personality-trait specific theoretical framework (Froiland, Mayor, & Herlevi, 2015; Reiss, 2009).

Research Questions

RQ1: Do the RSMP scales predict different levels of GPA?

RQ2: Do the RSMP factors and age predict different levels of GPA?

Participants

Participants included 459 students enrolled in developmental and introductory level academic courses at a community college in the western United States.

Convenience sampling method employed as a sampling strategy.

Procedures

Date collected through two online surveys: Demographic questionnaire (17-item) and Reiss Motivation Profile (104-item)

Collection approach included review of the study (i.e., in-class, email) and discussion of consent form and study instruments. Time was allowed for students to ask questions.

Analysis

Descriptive Statistics provided information related to study variables: participants' gender, age, and cumulative GPA level from the prior semester

Bivariate ordinal logistic regression determined relationship between Reiss 13 basic desires of motivation and cumulative GPA

Multivariate ordinal logistic regression determined relationship between each of the Reiss basic desires of motivation, gender, age; and cumulative GPA.

Findings

Descriptive Statistics Findings

- **Gender:** The sample closely represented the total college population. Forty one percent of the 459 participants were male while 59% were female.
- **Age:** The sample was within the age range of the total college population. The majority of the sample was under 25 years of age.
- **Cumulative GPA:** The sample appeared to represent the total population in grade distribution. The majority of the sample had an above-average GPA.

Regression Analysis Findings

- **Bivariate ordinal logistic regression:** Modest relationship found between the RSMP factors scales (curiosity, order, status, and vengeance) and cumulative GPA.
- **Multivariate ordinal logistic regression:** Modest, yet significant relationship found between the Reiss motivation factors (order, vengeance, and physical exercise) and cumulative GPA, but not between gender, age, and cumulative GPA.

Interpretation

Strong Desire For Curiosity (Intellectual Understanding)

Likelihood of higher GPAs than those with a lower desire for deep thinking

(Kavanaugh & Reiss, 2013; Froiland et al., 2015)

Strong Desire for Order (Structure)

Likelihood of higher cumulative GPAs than those with a weaker desire for organization

(Kavanaugh & Reiss, 2013; Muwonge et al., 2019; Stover et al., 2014)

Strong Desire for Status (Respect)

Likelihood of lower GPAs than those with a weak desire for status

(Steinmayr, Dinger, & Spinath, 2012; Wang & Finch, 2018)

Strong Desire Vengeance (Confront those who offend)

Likelihood of lower GPAs than those with a weaker desire for combative behavior

(Kavanaugh & Reiss, 2003)

Limitations

Possible study limitations include the following:

- The nature of the cross-sectional study design: inability to establish a cause-and-effect relationship between study variables)
- Insufficient effort or inattentiveness during online survey completion: inflated strength of observed relationship between study variables
- Use of one community college location: results do not generalize to other educational institutions
- Collected data from participants in introductory courses: results do not generalize to other student subgroups.

Recommendations

Follow-up with a retrospective cohort study or longitudinal study.

Include the use of attention checks via the use of 'trap' questions' such as "Please select the response option 'agree' for this question." If a participant fails to click the requested response, it may provide an indication of inattentiveness to the question and perhaps the entire survey.

Repeat the study with other subgroups, in other educational settings.

Ask the participants what their actual cumulative GPA was in their prior semester or use the participants' official transcripts for a more reliable measurement of semester GPA.

Social Change Implications

Students with a weak motivational strife for order may learn how best to manage disorganized and careless behaviors and spontaneous personality tendencies.

Students with a weak motivational strife for intellectual understanding may learn how best to manage frustration and boredom in traditional college curricula that requires deep or sustained thinking.

Students with a strong motivational strife for vengeance may learn how best to manage defensive combative behaviors

Students with a strong motivational strife for social status may learn how best to manage the impact of their social- economic status on their belief and capability to achieve academic success.

Educators, counselors, and school psychologists may be able to target effective strategies for improving the success of students whose motivational profiles negatively impact their GPA scores.

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