

To University or Not to University: That is the Aspiration

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Introduction

The National Rural Education Association (NREA) research priorities include college and career readiness for postsecondary experiences and closing achievement gaps in rural schools (National Rural Education Association, 2016). A rural high school in west Texas known as Roscoe Collegiate High School (RCHS) attempts to close the regional generational poverty gap via its innovative system model which includes early college access, instructional support, and industry-based experiential pathways. The administration at RCHS continuously monitors current students' educational and career aspirations via a local student survey. The survey data provide counselors, teachers, parents, and administrators ongoing insight into what RCHS adolescents envision themselves doing in the future. Understanding predictors of the aspirations of rural youth will benefit rural education practitioners as they support and guide youth toward pursuing a postsecondary education. RCHS stakeholders wished to understand if some variables measured by its local survey and its Measures of Academic Progress (MAP) assessment were able to predict the distinction of educational aspirations among its students.

The research purposes herein were to 1) describe student academic performance (achievement) and growth, student satisfaction with their accomplishments, their perception of school environment as contributive to post-graduate success, and student educational and career aspirations and 2) distinguish future educational aspirations for post-secondary attainment based on a linear combination of student academic achievement, academic growth, satisfaction with their accomplishments, and perceptions of the school as contributive to future success.

Theoretical framework

Academic achievement, (Lent et al., 1994; Liu et al., 2009), self-efficacy (Lent et al., 1994), and perceived school environment (Lent, Brown, & Hackett, 2000) are linked to educational and career aspirations. The social cognitive career theory (SCCT) (Lent et al., 1994), applies the career self-efficacy theory (Betz & Hackett, 1981) and the social cognitive theory (Bandura, 1986) to the development of career and educational choices. In Bandura's conceptual theory, a tripartite interaction among personal, behavioral, and environmental factors facilitates learning. Lent et al. (1994) further break down the factors into constructs that make up the complex career decision-making process. SCCT can and has been applied to research on rural secondary students' post-graduate aspirations (McWhirter & Ali, 2006). Our study is concerned with performance domains and attainments, learning experiences, self-efficacy expectations, environmental influences, and choice goals.

Methods

We used survey research data and existing academic assessment data in the study. Discriminant analysis is an appropriate method to use when the purpose is to determine predictor patterns that distinguish groups from others (Tabachnick & Fidell, 2019); in this case, the groups are defined by students' expected highest level of educational achievement in their lifetime.

The sample was intended to be the population: secondary school students who attend RCHS (n = 142). We measured academic achievement by student Northwest Evaluation

Association (NWEA) Measures of Academic Progress (MAP) reading test percentile ranks according to 2015 normed standards by grade level. Academic growth was measured by the change in Rausch Unit (RIT) reading scores from the September to the December tests. We measured satisfaction with self with a question worded, *How satisfied are you with your recent accomplishments?* Respondents chose from a 1-6 Likert-type scale: 1 = *Very dissatisfied*, 6 = *Very satisfied*. The perception of school as contributive to students' preparation for post-graduation was measured by a Likert-type scale item worded, *I believe my school is getting me ready to make innovative contributions to the real world*. Respondents chose from a 1-5 Likert scale: 1 = *Definitely not*, 5 = *Definitely*. We compressed educational aspirations into three groups as follows: Associate and technical degrees were combined as "2-year degrees," bachelor's degree remained as "4-year degree," and master's and doctoral degrees (and professional degrees [e.g. MD, JD, DVM, DDS]) were combined as "graduate degrees." We used discriminant analysis to determine the discriminating functions that predict group membership (Tabachnick & Fidell, 2019).

Findings

A majority of participants expect to earn a 4-year degree ($n = 64$, 45%) followed by a graduate degree ($n = 54$, 38%), indicating that 83% of students expect to earn at least a 4-year degree in their lifetimes. The top 5 career industry aspirations of students at RCHS were health science ($n = 49$, 35%); arts, audio/video technology, and communication ($n = 42$, 30%); science, technology, engineering, and math (STEM) ($n = 32$, 22%); human services ($n = 28$, 20%); and law, public safety, corrections, and security ($n = 28$, 20%). Participants could select more than one industry. The discriminant analysis revealed an overall significant Wilks' Lambda $\lambda = .89$, $\chi^2(8) = 16.78$, $p = .033$, for the combined functions. The first function had an eigenvalue of .07 and a canonical correlation of .26 yielding an effect size of .07. It explained 58% of the between-group variance in the solution.

Conclusions

Results revealed a significant linear combination of academic achievement, growth, satisfaction with recent accomplishments, and perception of school in distinguishing post-graduate degree aspirations. Academic achievement and satisfaction with one's recent accomplishments were the most prominent predictors in the function. Our research produced a small effect size and had notable limitations; thus, readers should be cautious to generalize findings.

Recommendations

We hope that others are equipped to improve future studies with valid and reliable measures of more clearly defined SCCT constructs and suggest that effort attribution theories such as growth mindset, grit, and locus of control be investigated as factors in educational and career aspiration development of rural adolescents. We recommend the district continue to monitor and celebrate success and to include key informants, qualitative designs, and more robust measures in future research.

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