

Grit, Optimism, Self-Efficacy and Locus of Control of Idaho CTSO State Officers

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Introduction

Career and Technical Education (CTE) has a strong history of preparing students to transition from school to the work place (Gordon, 2008). While CTE curriculum focuses on teaching content, many educators are also encouraged to focus their programs on not only content learning, but also on students' personal characteristics (Gordon, 2008). Personal characteristics include traits which are not related to academic aptitude, but are related to the non-cognitive factors which could predict academic success (Khine & Areepattamannil, 2016). Student success in CTE and subsequent career placement is enhanced by participation in Career Technical Student Organizations (CTSOs) (Zirkle & Connors, 2003). Integrating CTSOs into CTE programs provide students with opportunities to compete in content and leadership events, gain experience leading an organization, and can provide clarity and vision for each CTE content area (Gordon, 2008). Idaho recognizes seven CTSOs, each aligning with a career cluster: Business Professionals of America (BPA), DECA, Family, Career and Community Leaders of America (FCCLA), National FFA Organization (FFA), HOSA-Future Health Professionals (HOSA), SkillsUSA, and Technology Student Association (TSA). Each of these CTSOs are directed annually by individuals selected to provide leadership and guidance. The individuals selected to lead the state association are considered the *state officers*.

There is overwhelming evidence to support non-cognitive factors as contributors to individual success (Khine & Areepattamannil, 2016). Grit, optimism, locus of control and self-efficacy are non-cognitive traits with a positive relationship to student aptitude (Aspinwall, & Taylor, 1992; Estireis-Winkler, Shulman, & Duckworth, 2014). A thorough review of literature yielded no results related to non-cognitive characteristics of CTSO state officers in Idaho. This study was designed to describe the non-cognitive traits of Idaho CTSO state officers to inform a gap in the current literature. Identifying the current non-cognitive abilities of CTSO state officers in Idaho can inform decisions about leadership training and areas of need related to integration of non-cognitive traits into Idaho CTSOs. The study aligns with research priority three of the American Association for Agricultural Education research agenda (Roberts, Harder, & Brashears, 2016). The purpose of this study was to describe the demographic characteristics and non-cognitive traits of students who attended a CTSO leadership trainings in Idaho.

Conceptual Framework

This study was based on several student aptitude models that attempt to describe why some students have more aptitude than others (Carrol, 1963; Proctor 1984; Huit, 2003). The model has two major factors; student-based, and school-based. Student factors revolve around the student and include: personal characteristics, environmental, cognitive ability, and non-cognitive traits. School factors focus on the school environment. This set includes: school climate, school size, teacher quality, and student opportunities. As is evident from the population chosen for this study (CTSO state officers) each respondent attends a school that offers CTSO leadership opportunities. This study focused on the relationship between non-cognitive traits, personal characteristics, and school climate in CTSO state officers.

Methods

This descriptive study was conducted using descriptive survey methods. The population for this study was a census of all 2018-19 CTSO state officers in Idaho $N = 44$. Respondents were asked to complete a paper survey instrument containing five sections. Section one included demographic information. Section two was the 10-item *Grit Short Form* (Duckworth & Quinn, 2009) Grit is a summated score that can range from 1-5 and the average normative grit scores for adolescents is 3.4 (Duckworth & Quinn, 2009). Section three included the 10-item *Life Orientation Test (LOT-R)* (Schiever, Carver & Bridges, 1994) The average optimism scores on the LOT-R for adolescents is 3.7 on a scale scored from one to five scale. Section four was a modified version of the *General Self-Efficacy Scale (GSE)* (Schwarzer & Jerusalem, 1995). GSE is a summated score that can range from 1 - 10. The reported average adolescent score is $M = 7.4$. Section five was Rotter's (1966) locus of control questionnaire. Locus of control scores range from 1 - 23 with a higher score indicating a more intrinsic locus of control. The average for adolescents is $M = 9.03$ (Rotter, 1966). Previous estimates of reliability were examined for the instruments included in sections two through five, each construct within each section had a reported Cronbach's alpha level above $\alpha = 0.80$. Post hoc analysis yielded alpha levels at or above $\alpha = 0.80$ for each of the sections of the instrument. Of the total population ($N = 44$), $n = 37$ state officers responded, yielding an 84% response rate. State officers from all seven CTSOs were included among respondents. Data were entered into an MS excel spreadsheet and SPSS was used to run statistical analysis. Descriptive statistics were analyzed including frequencies and percentages for demographic characteristics and means and standard deviations for each of the four non-cognitive traits.

Results

Of the state officers surveyed, 40.53% were male and 59.42 were female. The majority participants were seniors in high school (63.89%) and indicated their race as white (86.49%). Participant grit scores ranged from 3.0 to 4.67 on a five-point scale, with a mean grit score of $M = 3.64(0.35)$. Participant optimism scores ranged from 2.17 to 5.0 with a mean score of $M = 3.66(0.62)$. Participants in this study self-efficacy scores ranged from 6.50 - 9.90 with a mean of $M = 8.15(1.04)$. Participants locus of control scores ranged from 4 - 21 with a mean of $M = 12.73(4.02)$.

Conclusions, Implications, Recommendations

Respondents in this study on average had grit and locus of control scores above the reported adolescent average. Optimism scores for respondents were lower than the reported adolescent average. Further research is needed to explore potential differences between CTSO state officers and adolescent averages. Research could also explore grit and locus of control and the development opportunities students receive prior to and during their state officer year. CTE is designed to teach students the skills they need to be employable (Idaho State Board, 2017). These findings should be examined to further describe the role of grit, locus of control, optimism, and self-efficacy in student leaders and members of CTSOs. As Idaho CTSO personnel work to create leadership training content and train the next generation of CTSO leaders.

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