

Caring About Success: Students' Perceptions of Professors' Caring Matters More Than Grit

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Retention in higher education has become an important area of focus in recent years; however, much of the research has been conducted on large, research-intensive universities, leading to questions of whether these findings apply to institutions with different characteristics. In the current study, forty-four students at a small, teaching-focused university completed self-report measures on their academic success (performance and commitment), sense of belonging, and grit. Participants were classified as belonging to one of four groups: HPHC (high performing, high commitment), HPLC (high performing, low commitment), LPHC (low performing, high commitment), or LPLC (low performing, low commitment). ANOVAs and post-hoc tests revealed that LPLC students were significantly lower than all other groups on self-reported professors' pedagogical caring. Interestingly, no group differences emerged for grit, social acceptance, or global university belonging. Implications for prevention and intervention programs are discussed.

Understanding variables that influence student success is paramount to institutions. According to a recent report, only about half of the students who enter American colleges and universities actually graduate (Schneider & Yin, 2011). Low retention rates cost students thousands of dollars in tuition, as well as taxpayers billions of dollars in grants and state appropriations (Schneider & Yin, 2011). As Strauss and Volkwein (2004) noted, institutions can strengthen their capacities for educational and administrative planning through a better understanding of how to predict student retention. Additionally, accrediting agencies are placing greater emphasis on student commitment and retention (McMurtie, 2000). Furthermore, student retention rates are becoming a more common performance indicator (King, 2016).

This area of study can be considered crucial in ensuring a stable future for higher education. An institution's success can be strongly impacted by its retention rates. While high school GPA and standardized test scores like the ACT/SAT can be helpful in predicting students' success in higher education, certainly other characteristics may be helpful as well (e.g., Duckworth, Peterson, Matthews, & Kelly, 2007; Strayhorn, 2014). According to the National Center for Education Statistics, the 6-year graduation rate for first-time, full-time undergraduate students who began their studies in fall 2008 was 65 percent at private nonprofit institutions (U.S. Department of Education, 2016). It was higher for females than for males (68 vs. 62 percent).

Institutions with higher retention rates typically have programs in place that ensure student success (Tinto, 1987). Tinto's model (1987) of persistence in postsecondary institutions highlights the need for students' integration in academic and social systems. The integration that Tinto (1987) modeled could include programs that are more tailored to the individual, based

on his or her demographics, such as socioeconomic status and pre-existing academic record. Research on retention in higher education has focused on both systemic and individual factors; however, much of the research has been conducted at large, public, research-oriented institutions (e.g., Freeman, Anderman, & Jensen, 2007; Hoffman, Richmond, Morrow, & Salmone, 2002; Strayhorn, 2011). The current study considered how two factors- students' sense of belonging and grit- impact their success at a small, private, teaching institution. Success was examined through academic performance and academic commitment.

Sense of Belonging

Students' sense of belonging has been associated with higher levels of academic engagement and achievement (Buhs, 2005; Zumbunn, McKim, Buhs, & Hawley, 2014). The need to feel accepted and supported by teachers and peers may be especially important as young adults move from high school into college, or from one college to another (Tinto, 1987). This sense of belonging can be assessed at the level of the institution or/and at the level of the classroom. Freeman and colleagues (2007) found associations between students' sense of class belonging and their academic self-efficacy, intrinsic motivation, task value, and perceptions of instructors' support. They also found that students' sense of university-level belonging was connected to their sense of social acceptance.

Adjusting to college can be a very stressful time for many individuals. It can arguably be more difficult for those who identify as a minority, as well as those in a lower socioeconomic status (Tinto, 1987; Zumbunn et al., 2014), which is why the current study included a diverse group of participants. According to Stayhorn, (2011) the greatest outcome for belonging could be

found in places like the student's chosen department or classroom. No matter the size of the university, most of a student's time can be spent learning and making connections in the classroom. Findings from Hoffman and colleagues (2002) reveal that sense of belonging to the institution is related to perceptions of valued involvement in the campus environment. Their findings further show that this involvement is based on establishing supportive peer relationships along with beliefs that faculty are compassionate and recognize students as individuals.

Faculty members are in a unique position to provide students with a sense of belonging. Academic concerns have been found to be one of the main causes of distress in first-year college students (Hoffman, et al., 2002). Tinto (1987) found that a positive encounter with faculty members can indicate positive academic outcomes, which could help alleviate the previously mentioned stressor. Once the academic piece of the professor-student relationship is satisfied, other aspects of the relationship grow, further increasing a student's sense of belonging or fit (Zumbrunn et al., 2014). It has been suggested that if an environment itself is perceived as caring, then the need to belong is fulfilled (Baumeister & Leary, 1995; Freeman et al., 2007). Freeman and colleagues (2007) found that faculty members who encouraged student interaction and participation, and were perceived as warm and organized, fostered the strongest sense of belonging on campus.

Since most research on sense of belonging at universities have been conducted at large institutions (e.g., Freeman et al., 2007; Hoffman et al., 2002), we know very little about whether these findings extend to other college environments. For instance, at larger schools, it may be peers and extracurricular activities that make a student feel at home (Tinto, 1987), but for a smaller school, it may be the faculty that promote bonding with the institution. This current study adds to the literature in its examination of the role of belonging in academic success at a small institution.

Grit

An individual characteristic that may play a significant role in academic success is grit. Grit is conceptualized as perseverance and passion for long-term goals (Duckworth et al., 2007). Duckworth's concept of grit (2007) has been related to educational success, including higher GPAs, college satisfaction, sense of belonging, and commitment to academic field/career (e.g., Bowman, Hill, Denson, & Bronkema, 2015; Duckworth et al., 2007; Stayhorn, 2014). In one of the seminal studies on grit, Duckworth and colleagues (Duckworth et al., 2007) examined predictors of success among Ivy League undergraduates and United States Military Academy (West Point)

cadets. In this study, grit demonstrated incremental predictive validity of success measures over and beyond IQ and conscientiousness. In a later published study, Duckworth and Quinn (2009) found that when measured using a short scale, grit influences retention rates among West Point military cadets.

Grit may provide a particularly significant role for minority students. Strayhorn (2014) studied predictors of academic success among Black men enrolled in predominately White institutions. He found that grit was positively related to college grades. Furthermore, he found that grit added predictive validity beyond traditional measures of academic success, such as high school GPA and standardized exam scores. Portes and Rumbaut (2006) suggest that an ideology of grit may help individuals respond positively to prejudice and discrimination. O'Neal and colleagues (2016) studied Latina/o first-generation college students. Interestingly, among all their participants, grit was higher than that of the largely Caucasian participants in the original grit study sample (Duckworth & Quinn, 2009). O'Neal and colleagues (2016) found that among Latina/o students, grit was used to overcome stressful emotions and external obstacles to academic achievement.

However, a recent meta-analysis of the grit literature failed to find strong relations between grit scores and success (Credé, Tynan, & Harms, 2017). Their findings suggest that the relations between grit and academic performance and retention are modest and do not compare with other well-known predictors of academic performance. Importantly, Credé and colleagues (2017) do acknowledge that small to moderate effect sizes can be useful when marginal improvements in individuals' performances can have meaningful positive consequences. In other words, a small increase in academic performance could mean the difference between graduating and dropping out for thousands of college students.

There are some important limitations to the grit research, which the current study seeks to address. First, past research has been conducted among undergraduates at large universities (Bowman et al., 2015; Strayhorn, 2014) and highly selective institutions (Duckworth et al., 2007); the current study was conducted at a small, private, teaching-focused institution. Scarr and McCartney's (1983) concept of niche picking would suggest that the students who choose to attend a large institution differ in significant ways from those who choose to attend a small institution. For example, research by Corker, Donnellan, Kim, Schwartz, & Zamboanga (2017) shows that students at different universities differ in terms of average levels of Big Five personality domains. Specifically, larger campuses had more extraverted students than smaller campuses. Additionally, past research has focused on students in their early years of

education (e.g., Bowman et al., 2015), while the current study included undergraduates at various levels of their education. Including all undergraduates ensure a broader understanding of what truly retains students at all points of their education. Finally, the current study takes a novel approach by including both measures of academic performance and commitment in its definition of academic success. Duckworth and colleagues' definition of grit (2007) lends itself well to this approach, and it will be interesting to evaluate how grit impacts academic success.

Research Questions and Purpose of Study

Thus, the current study sought to better understand the relationship between socio-emotional variables and academic success at a small, teaching-focused university. One systemic factor, sense of belonging, was investigated along with one individual factor, grit. Importantly, this study took place at a small university. Prior studies have been conducted at large institutions on students' sense of belonging (e.g., Freeman et al., 2007; Hoffman et al., 2002) and grit (e.g., Bowman et al., 2015; Strayhorn, 2014). Possibly, findings from previous studies do not generalize to small institutions. As Tinto (1987) emphasized, academic and social systems of an institution impact student persistence. These systems likely differ at small institutions, given differences in class sizes and student/professor ratios, types of students attracted to these institutions, and expectations placed on faculty and students.

Also unique to this study is a more inclusive view of academic success. For the current study, academic success includes both academic commitment and class performance (i.e., GPA). Prior studies only evaluated performance, which may present an incomplete picture of persistence and success at an institution.

In sum, we asked the following research questions:

1. Are variables positively correlated with each other?
2. Are there group differences (based on academic commitment and academic success) on sense of belonging?
3. Are there group differences on grit?

Method

Participants

Forty-four students (11 males; 32 females; 1 gender fluid) completed all the questionnaires. While the sample is small, it is relatively diverse. Participants ranged in age from 18 years to 30 years, $M=21$, $SD=2.27$. There was a range in reported ethnicity: 84.1% Caucasian, 11.4% African American/Black,

2.3% Native American/ American Indian, and 2.3% Hispanic/Latino. Sixteen distinct majors were represented among the participants, with the largest numbers identifying as counseling psychology majors (27.3%), conservation and wildlife majors (11.4%), animal science majors (11.4%), and biology majors (11.4%). Participants also varied in self-reported GPA with a minimum of 1.3 and a maximum of 4.0, $M=3.24$, $SD=0.61$. Academic status also varied, with 20.5% identifying as freshmen, 6.8% as sophomores, 36.4% as juniors, and 36.4% as seniors. Participants differed in the number of years they had spent at the current institution: 25% reported being in the first year at the institution, 25% reported being in their second year, 25% reported being in their third year, and 25% reported being in their fourth year.

Procedure

Upon receiving approval from the Institutional Review Board, participants were recruited from a small, private university in the northeastern part of the United States to participate in a quantitative research study. Undergraduate students were contacted through email with a link to online survey questionnaires. When the link was opened, consent information appeared. Students who actively acknowledged consent were granted access to the questionnaires. There was no compensation for participation in the study. Participants completed the following questionnaires as part of a larger project; in total, participants responded to 50 questions.

Measures

Demographics. Participants responded to 19 questions, including identification of their age, gender, major, race/ethnicity, length of time at the current institution, year/ class standing, and current GPA.

Academic commitment. Academic commitment was measured using three items from Bowman et al.'s study (2015). Participants were asked to indicate the likelihood that they would persist until graduation, change major field, and change career choice using a 5-point Likert scale. An academic commitment score was created using the sum of participants' responses to those three questions.

Sense of belonging. Sense of belonging was assessed using the measure from Freeman, Anderman, and Jensen (2007). They had adapted Goodenow's (1993) Psychological Sense of School Membership (PSSM) for use with university students to measure belonging at the classroom level and at the university level. For this study, the adapted version that assesses students' sense of belonging at the university level was used. There are 16 items total, of which 5 items which measure social acceptance, 5 items that measure

Table 1
Intercorrelations of Variables (N=44)

	GPA	AcCom	SocAc	ProfCar	UnivB	Grit
GPA	1					
AcCom	.30	1				
SocAc	.13	.33*	1			
ProfCar	.34*	.36*	.68***	1		
UnivB	.19	.13	.53***	.45**	1	
Grit	.27	.18	.46**	.30*	.53***	1

Note. GPA= Current GPA, AcCom= Academic Commitment, SocAc= Social Acceptance, ProfCar= Professors' Pedagogical Caring, UnivB= University Belonging

* $p < .05$, ** $p < .01$, *** $p < .001$

professors' pedagogical caring, and 6 items that measure global university belonging. Social acceptance indicates students' sense of belonging in the social realm, mostly in terms of peer acceptance. Professors' pedagogical caring refers to the extent to which students' feel valued by their professors. Global university belonging represents students' sense of feeling accepted by the institution. Participants were asked to rate the items using a 5-point Likert scale.

Grit. Grit was measured using Duckworth and Quinn's (2009) 12-item questionnaire. Participants were asked to self-report on items using a 5-point Likert scale.

Group Identification

Participants were identified as belonging to one of four academic success group based on their self-reported GPA and academic commitment score. Academic commitment scores reflected students' dedication to their major and profession, while GPA reflects students' academic performance. Academic commitment scores ranged from 7.0 to 14.0, with a median score of 13.0. Twenty-six students reported an academic commitment score of 13.0 or greater. Self-reported GPA ranged from 1.3 to 4.0. Thirty-two students reported a GPA of 3.0 or greater.

High-performing, high commitment students (HPHC) were identified as those with a self-reported GPA of 3.0 or greater and an academic commitment score of 13.0 or greater. High-performing, low commitment students (HPLC) were identified as those with a self-reported GPA of 3.0 or greater and an academic commitment score below 13.0. Low-performing, high commitment students (LPHC) were identified as those with a self-reported GPA below 3.0 and an academic commitment score of 13.0 or greater. Low-performing, low commitment students (LPLC) were identified as those with a self-reported GPA below 3.0 and an academic commitment score below 13.0.

Results

Based on the procedures described above, 23 participants were identified as HPHC students, 10 as HPLC students, 6 as LPHC students, and 5 as LPLC students.

Pearson correlations were conducted among the variables of interest: GPA, academic commitment, the belonging scales (social acceptance, professors' pedagogical caring, and global university belonging), and grit. All correlations are reported in Table 1, with significant correlations noted. Significant positive correlations between academic caring, the belonging subscales, and grit were found, indicating that these variables are connected with each other. As scores on one of these variables increase, scores on another variable increase as well. ANOVAS were conducted to assess group differences on each of the belonging scales (social acceptance, professors' pedagogical caring, and global university belonging) and on grit. No group differences were found on grit, social acceptance, or global university belonging. However, there were group differences on professors' pedagogical caring, $F(3, 40) = 5.34, p < .01$. Post hoc comparisons using the Tukey HSD test indicated that the mean score of LPLC ($M = 16.80, SD = 3.35$) was significantly lower than the other groups (LPHC: $M = 22.00, SD = 2.00$; HPHC: $M = 21.70, SD = 2.01$; HPLC: $M = 21.20, SD = 3.49$). Therefore, students who were low performers and who indicated low commitment perceived professors as less caring than students in any of the other groups. ANOVA results are presented in Table 2 for this finding.

Discussion

The primary purpose of this study was to explore the relationship between socio-emotional variables and academic success at a small, teaching-focused university. We hypothesized to find positive correlations among all variables. We also expected to find significant group differences when considering students' sense of belonging and grit. Specifically, we

Table 2
Analysis of Variance for Professor Caring

Source	SS	df	MS	F	P-Value
Between groups	105.53	3	35.18	5.34	.003
Within groups	263.27	40	6.58		
Total	368.80	43			

expected to find the students who are high-performers with a strong academic commitment to report higher scores on sense of belonging than students who do not perform as well and/or do not report a strong academic commitment. Results supported only a few of these hypotheses.

Our finding that a sense of belonging was connected to student academic success matches the work of previous studies in this area (e.g., Palmer, O’Cane, & Owens, 2009; Strayhorn, 2012; Zumbunn et al., 2014). There has been a plethora of studies assessing these variables in middle and high school students (Anderman, 2003; Catalano, Oesterle, Fleming, & Hawkins, 2004; Crosnoe et al., 2010; McNeely, Nonnemaker, & Blum, 2002; Murray & Zvoch, 2011; Roorda, Koomen, Spilt, & Oort, 2011) and in college students at large public universities (Bowman et al., 2015; Duckwork et al., 2007; Freeman et al., 2007; Komarraju, Musulkin, & Bhattacharya, 2010; Strayhorn, 2013). Considering how belonging beliefs may be context-specific (Strayhorn, 2012; Tinto, 1993), the present study makes a significant contribution in its inclusion of students at a small, private, teaching-focused university.

Results of this study suggest that specific aspects of belonging have different consequences for academic success. A nuanced understanding of how students form a sense of belonging and how that sense of belonging functions is needed, particularly in a smaller university setting. The lack of group differences on social acceptance and global university belonging might suggest that at a smaller university, students are impacted more by individual relationships than they are by broader institutional networks. The social acceptance subscale focused mainly on peer acceptance, while the global university belonging subscale encompassed a broader sense of belonging at the institution. The significant group differences of professors’ caring emphasize the role faculty play in student success, expanding on prior findings that link belonging with achievement processes (Zumbunn et al., 2014). The professors’ pedagogical caring subscale assessed the extent to which students felt valued by their professors. Velasquez, West, Graham, & Osguthorpe’s (2013) review of the literature emphasizes the role of a caring pedagogy and argues for development of valid instruments measuring it, particularly in higher education. Future research should

address how professors can demonstrate care with students in appropriate and effective ways.

Our measure of academic success included commitment to major/field in addition to grades. The research on this aspect of academic success has received less attention in the literature. Previous studies (e.g., Komarraju et al., 2010) have found a link between the student-professor relationship and academic self-concept. Interestingly, analysis on the belonging scales only revealed significant group differences for professors’ pedagogical caring, not social acceptance or global university belonging. Student belonging is associated with both academic and social support from teachers (Catalano et al., 2004); however, much of the research has focused on campus community belonging (Strayhorn, 2012).

We were surprised by the lack of significant findings concerning grit. Grit was correlated only with the subscales of sense of belonging, but not with GPA or academic commitment. There were no significant group differences among any of the groups. More recent research on grit does confirm the construct’s limitations (Credé, Tynan, & Harms, 2017). For example, in a study conducted at West Point (Maddi et al., 2017), grit was related to cadet’s retention, but not their first year performance. Similarly, in a study of first-year college physics students, grit was not a significant predictor of student academic achievement or course success (Bazelais, Lemay, & Doleck, 2016). Certainly, continued study is warranted to better understand how individual factors, like grit, impact students’ academic success.

There are limitations to the current study that should be noted. One limitation of this study is that, due to its descriptive and correlational nature, it should be seen only as providing suggestions on ways in which the examined variables influence one another. Longitudinal analysis could explore dynamic sources of student- and instructor-variables to ascertain how they impact students’ academic performance and commitment. Additionally, it is important to note that all data collected was in the form of self-reports. Future research may benefit from observations data; for example, observations of instructors’ behaviors that may contribute to students’ perceptions of caring. Nonetheless, this study marks an important contribution to our understanding of the factors related to student success at a small, teaching-focused university.

References

- Anderman, L. H. (2003). Academic and social perceptions as predictors of change in middle school students' sense of school belonging. *The Journal of Experimental Education, 72*(1), 5-22.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. *Psychological bulletin, 117*(3), 497-529.
- Bazelais, P., Lemay, D. J., & Doleck, T. (2016). How Does Grit Impact College Students' Academic Achievement in Science?. *European Journal of Science and Mathematics Education, 4*(1), 33-43.
- Bowman, N. A., Hill, P. L., Denson, N., & Bronkema, R. (2015). Keep on truckin' or stay the course? Exploring grit dimensions as differential predictors of educational achievement, satisfaction, and intentions. *Social Psychological and Personality Science, 6*(6), 639-645.
- Buhs, E. S. (2005). Peer rejection, negative peer treatment, and school adjustment: Self-concept and classroom engagement as mediating processes. *Journal of School Psychology, 43*(5), 407-424.
- Catalano, R. F., Oesterle, S., Fleming, C. B., & Hawkins, J. D. (2004). The importance of bonding to school for healthy development: Findings from the Social Development Research Group. *Journal of School Health, 74*(7), 252-261.
- Corker, K. S., Donnellan, M. B., Kim, S. Y., Schwartz, S. J., & Zamboanga, B. L. (2017). College student samples are not always equivalent: The magnitude of personality differences across colleges and universities. *Journal of Personality, 85*(2), 123-135.
- Credé, M., Tynan, M. C., & Harms, P. D. (2017). Much ado about grit: A meta-analytic synthesis of the grit literature. *Journal of Personality and Social Psychology, 113*(3), 492-511.
- Crosnoe, R., Morrison, F., Burchinal, M., Pianta, R., Keating, D., Friedman, S. L., et al. (2010). Instruction, teacher-student relations, and math achievement trajectories in elementary school. *Journal of Educational Psychology, 102*, 407-417.
- Duckworth, A. L., & Quinn, P. D. (2009). Development and validation of the Short Grit Scale (GRIT-S). *Journal of Personality Assessment, 91*(2), 166-174.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: perseverance and passion for long-term goals. *Journal of personality and social psychology, 92*(6), 1087-1100.
- Freeman, T. M., Anderman, L. H., & Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. *The Journal of Experimental Education, 75*(3), 203-220.
- Goodenow, C. (1993). Classroom belonging among early adolescent students relationships to motivation and achievement. *The Journal of Early Adolescence, 13*(1), 21-43.
- Hoffman, M., Richmond, J., Morrow, J., & Salomone, K. (2002). Investigating "sense of belonging" in first-year college students. *Journal of College Student Retention: Research, Theory & Practice, 4*(3), 227-256.
- King, T. A. (2016). Improving the Implementation of an United States Accrediting Agency's Retention Standard through Best Practices: An Action Research Study. *ProQuest LLC*.
- Komaraju, M., Musulkin, S., & Bhattacharya, G. (2010.) Role of student-faculty interactions in developing college students' academic self-concept, motivation, and achievement. *Journal of College Student Development, 51*(3), 332-342.
- Maddi, S. R., Matthews, M. D., Kelly, D. R., Villarreal, B. J., Gundersen, K. K., & Savino, S. C. (2017). The continuing role of hardiness and grit on performance and retention in West Point cadets. *Military Psychology, 29*(5), 355-358.
- McMurtrie, B. (2000). Accreditors revamp policies to stress student learning. *The Chronicle of Higher Education, A29- A31*.
- McNeely, C. A., Nonnemaker, J. M., & Blum, R. W. (2002). Promoting school connectedness: Evidence from the national longitudinal study of adolescent health. *Journal of school health, 72*(4), 138-146.
- Murray, C., & Zvoch, K. (2011). Teacher-student relationships among behaviorally at-risk African American youth from low-income backgrounds: Student perceptions, teacher perceptions, and socioemotional adjustment correlates. *Journal of Emotional and Behavioral Disorders, 19*, 41-54.
- O'Neal, C. R., Espino, M. M., Goldthrite, A., Morin, M. F., Weston, L., Hernandez, P., & Fuhrmann, A. (2016). Grit under duress: Stress, strengths, and academic success among non-citizen and citizen Latina/o first-generation college students. *Hispanic Journal of Behavioral Sciences, 38*(4), 446-466. DOI: 10.1177/0739986316660775
- Palmer, M., O'Cane, P., & Owens, M. (2009). Betwixt spaces: Student accounts of turning point experiences in the first-year transition. *Studies in Higher Education, 34*, 37-54. doi.org/10.1080/03075070802601929
- Portes, A., & Rumbaut, R. G. (2006). *Immigrant America: a portrait*. University of California Press.
- Roorda, D. L., Koomen, H. M., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher-student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of educational research, 81*(4), 493-529.
- Scarr, S.; McCartney, K. (1983). "How People Make Their Own Environments: A Theory of Genotype

- Environment Effects*". *Child Development*. 54 (2), 424- 435. doi:10.2307/1129703
- Schneider, M., & Yin, L. (2011). The High Cost of Low Graduation Rates: How Much Does Dropping Out of College Really Cost?. *American Institutes for Research*.
- Strayhorn, T. L. (2011). Majority as temporary minority: Examining the influence of faculty–student relationships on satisfaction among White undergraduates at historically Black colleges and universities. *Journal of College Student Development*, 52(2), 509-524.
- Strayhorn, T. L. (2012). *College students' sense of belonging: A key to educational success for all students*. Routledge.
- Strayhorn, T. L. (2014). What role does grit play in the academic success of Black male collegians at predominantly White institutions? *Journal of African American Studies*, 18(1), 1-10.
- Strauss, L. C., & Volkwein, J. F. (2004). Predictors of student commitment at two-year and four-year institutions. *The Journal of Higher Education*, 75(2), 203-227.
- Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.
- U.S. Department of Education, National Center for Education Statistics. (2016). *The Condition of Education 2016* (NCES 2016-144), Undergraduate Retention and Graduation Rates.
- Velasquez, A., West, R., Graham, C., & Osguthorpe, R. (2013). Developing caring relationships in schools: A review of the research on caring and nurturing pedagogies. *Review of Education*, 1(2), 162- 190.
- Zumbrunn, S., McKim, C., Buhs, E., & Hawley, L.R. (2014). Support, belonging, motivation, and engagement in the college classroom: A mixed method study. *Instructional Science*, 42(5), 661- 684.

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