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WHY DO YOU GO TO COLLEGE?

SHAPING STUDENT BELIEFS AND SUCCESS

A Dissertation Summary

Mitchell C. Colver, PhD



Why Do You Go to College? Shaping Student Beliefs and Success

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Student Beliefs & Student Success

An exciting trend in American higher education research has recently emerged in which undergraduate student success is not conceived merely as a product of appropriate academic *behaviors*, but rather as an extension of healthy student *attitudes*.¹ At Utah State University, a top performing institution in social mobility, research, and service,¹⁰ this approach to understanding student success as a dimension of student attitude is extended to encompass an appraisal of student beliefs about higher education.

What students *believe* about the purpose of a university education and about the purpose of being an undergraduate student can be widely varied. Some believe the purpose of a college education is to prepare them for entry into the job market, seeing themselves as valuable to society in an exclusively occupational way. Other students believe that the experience of a university education is about achieving both career competence *and* growth towards their personal potential in many domains—civic, social, domestic, cultural, and economic. Still yet, there are a few students who are not particularly sure *why* the university experiences is valuable, whether to themselves, to prospective employers, or to society.

The following research is based on the *ontological view of student success*, which posits that meaningful academic outcomes *are* the product of effective student behaviors, but that those behaviors emerge from student attitudes, which are themselves grounded in student identity and beliefs about the purposes of university education.



Figure 1. An ontological view of student success. © Mitchell Colver

Students' core beliefs about their own role as undergraduates and about the purposes of higher education shape the roles that students expect themselves to fulfill and also set their expectations for the nature of the relationship they create and maintain with institution of higher education.

Student attitudes and behaviors directly flow from these beliefs and identities and ultimately produce final and meaningful academic outcomes.

From this theoretical perspective, if a student believes that a post-secondary education will exclusively prepare them for a narrow band of career opportunities in the occupational domain, then they may approach their academics in a way that welcomes a great deal of prescribed rather than elective coursework. This set of beliefs will produce a matching identity for the student to embrace; the student might conceive of themselves as a commodity on a production line, where progress at each benchmark is certified by an aloof faculty, whose exclusive role is grading the quality of goods. These students' attitudes, especially in the face of adversity, confusion, and radical independence that college life often produces, might lead to commensurate behaviors of disengagement that ultimately achieve less than ideal outcomes. In this example, we see that beliefs set student expectations for the obligations they must live up to and also frame their understanding of the roles that that institutional officers must also fill.

This ontological view of student well-being speaks to importance of understanding the dynamic relationship between institutional mission statements and student beliefs. This theoretical approach to understanding student development at Utah State University (USU) led to an ongoing, multi-year research project centered on a framework of student motivation first articulated in the Academic Motivation Scale for College.² This instrument asks students to reveal their beliefs about the purposes of a college education by asking the question “*Why do you go to college?*” Based on the motivational theories³ of Deci & Ryan, the Academic Motivation Scale asks students to rate themselves regarding both intrinsic and extrinsic motivations that guide their enrollment, as well as on consideration of amotivational factors. Responses reveal that varying desires for excellence across seven factors of motivation: career competence, salary, learning, achievement, proving oneself, and immersive scholarly activity, all of which have been shown to fuel students' pursuit of post-secondary credentials. Interestingly, the fact that these results can vary so greatly across seven different categories of motivation makes interpreting the results difficult.

This complexity of interpreting the various blends of motivation across the seven factors led me to the following intriguing research questions:

- 1) Can student motivation be categorized into several profiles or “types” that epitomize the several *dominant systems of belief* amongst students about the purposes of a college education?
- 2) If so, are each of those dominant systems of belief associated with varying student behaviors and academic outcomes?

Data Collection & Analysis

During the spring and summer of 2015, incoming students at USU provided responses to a short survey, which included the Academic Motivation Scale for College (AMS-C). With the AMS-C, seven factors of academic motivation are assessed on a seven-point likert scale (0 = does not correspond at all, 7 = corresponds exactly). A total of 1,705 students agreed to participate in the research, and survey responses were collected longitudinally, at the end of their first and second years.

Using a Latent Profile Analysis⁴, we extracted several student profiles, or types, each representing a *distinct belief system* regarding the purposes of a college education. Three discrete profiles emerged across seven variables of academic motivation (see Figure 2). Latent Profile Analysis is useful to the extent that reveals common response patterns across multiple factors within a single dataset. “The goal of Latent Profile Analysis is to identify different subgroups... whose members are similar to each other and different from members of other subgroup.”⁵ In our dataset, which contained seven different factors, we were surprised to see that only three profiles emerged, which allowed for a more parsimonious interpretation.

After examining the latent profiles across all seven factors of academic motivation, three labels were generated in an attempt to capture the distinct response characteristics of each group: *Investors*, *Learners*, and *Ambivalent* students.

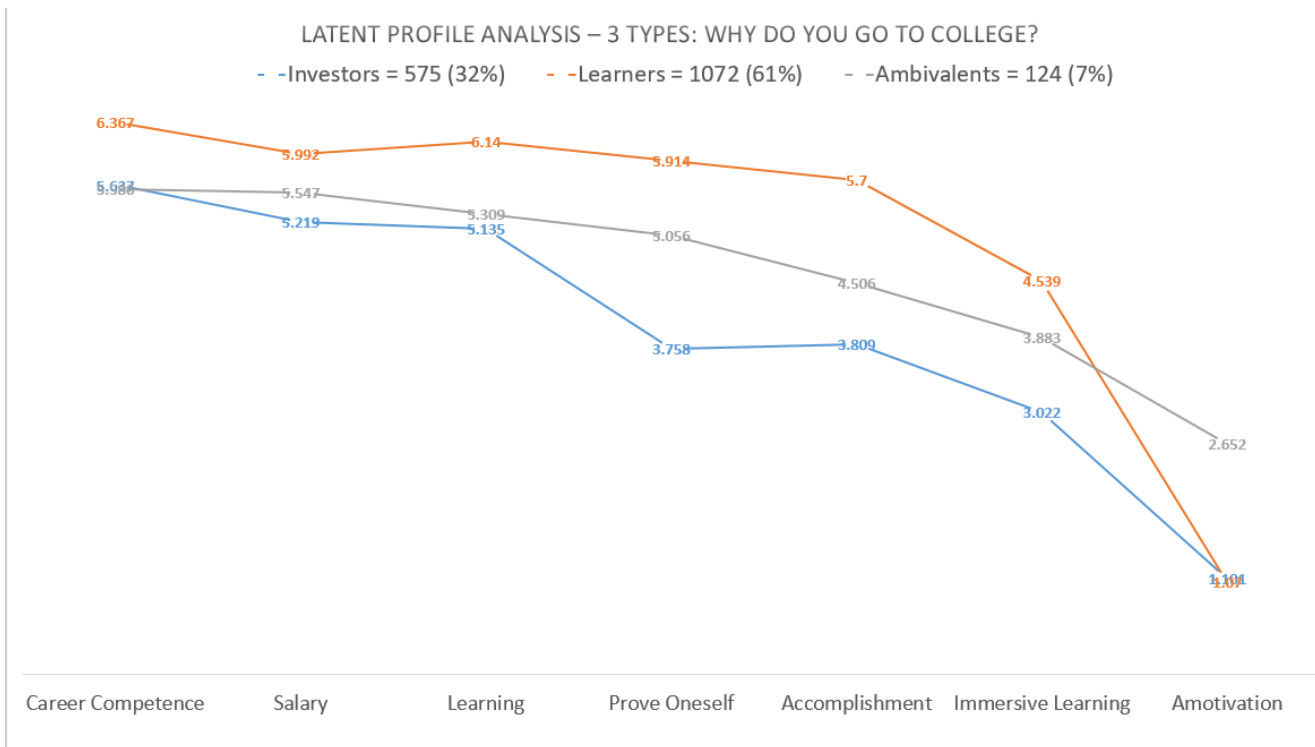


Figure 2. Three latent profiles emerged from the analysis: 1) Investors, 2) Learners, and 3) Ambivalent.

Ambivalent students were characterized by the highest levels of amotivation amongst the three groups. This motivation profile also had the lowest mean age of the three groups. Amotivation was captured in statements like, “I can't see why I go to college and frankly, I couldn't care less.” Ambivalent students were *less likely to strongly disagree* with multiple statements of that same nature. These students reported being significantly less likely to remember information presented in class compared to the other two profiles. Ambivalent students also reported significantly greater concern about their social relationships than the other two profiles, which aligns with previous research¹¹ that found that students who arrive to university with high levels of amotivation report lower levels of social integration by the end of their first year. Ambivalent students also reported less confidence in their major than the other two profiles. This is cause for concern given that Tinto¹² has suggested that ongoing uncertainty about one's major “can lead to departure both from the institution and from the higher educational enterprise as a whole” (p. 43).

Investors responded in a way that revealed their prioritization of career preparation, salary, and professional prestige over desires for immersive learning, hard work, and a sense of personal growth and accomplishment. While they reported having strong competencies in math and entered the university with the highest mean standardized test scores of the three profiles, they also self-reported spending significantly less time devoted to their studies. Investors arrive to university expressing less social concern than their peers and are significantly less likely to report using the campus library. Investors had the highest mean age of the three groups and were more likely than the other profiles to be male.

Learners were the most likely to strongly agree with the statement, “The primary purpose of college is to become a learner so you can adapt and thrive throughout your life and career.” Learners' responses revealed that they prioritize learning and personal growth to a greater degree than the other two profiles. Learners reported significantly greater confidence in the university upon entry and significantly greater confidence in their choice of major than either of the other two profiles. These students also reported being significantly better than the other two profiles at finding time to study. Learners posted significantly higher college GPAs compared to Ambivalent students, a distinction that does not exist when comparing Investors to Ambivalent students. Learners, more than any other profile, responded in a way that revealed their belief that hard work can be an important aspect of proving oneself and fueling their desire to succeed on the path of accomplishment and personal growth.

While it was not anticipated, the response patterns of all three groups revealed that a market-oriented view of higher education is a core motivation for all students. However, a key difference between Investors and Learners, in particular, was not so much in how greatly they

valued career competence, salary, or learning, but in how important they ranked factors like *proving oneself in the face of adversity, demonstrating personal improvement, and acquiring a sense of personal accomplishment in college*. Learners significantly outstripped the other groups in desires for hard work, personal growth, and academic satisfaction in collegiate coursework.

Student Transition between Profiles

Because developmental changes can occur for students (in some cases, as a result of programs and services provided by the institution), these results led to a further hypothesis that some students might *transition* from one profile (belief system) to another during the course of their first year at USU. The results of a one-year follow up survey⁶ revealed that this was, in fact, the case—14% of students transitioned from one profile to another during the course of their first year of college (see Table 1).

These transitions were particularly interesting because the motivational factors that constituted the nature of each of the three latent profiles remained consistent and stable despite each group having a change in group membership. The fact that so many students transitioned amongst the three latent profiles led us to consider the possible influence that first-year programming had on these transitions.

Table 1. Counts of Student Transitions from Profile to Profile

	Time 2 Investors	Time 2 Learners	Time 2 Ambivalent	Time 1 PROPORTIONS
Time 1 Investors	487 28.6%	61 3.6%	16 0.9%	564 33.1%
Time 1 Learners	43 2.5%	974 57.1%	48 2.8%	1,065 62.4%
Time 1 Ambivalent	4 0.2%	67 3.9%	5 0.3%	76 4.4%
Time 2 PROPORTIONS	534 31.3%	1,102 64.6%	69 4%	1,705 100%

Students transitioned amongst the three profiles from the time of their first response as incoming Freshmen and their second response one year later. For example, 487 students began in the Investors profile and remained in this profile throughout their first year. The Learner category received the highest proportion of students from the other profiles and had the largest absolute increase in membership from Time 1 to Time 2.

Shaping Student Beliefs: Orientation & First-Year Experience

Utah State University offers a robust orientation experience that includes a full-day orientation, multiple required online orientation modules, and a 40-minute introduction to the value of a liberal arts experience delivered by a faculty member in the College of Humanities and Social Sciences. This introductory speech, which highlights the ideals of a *Citizen Scholar*⁷ and the mission of USU, is accompanied by a book provided to each incoming student—*Becoming a Learner*.⁸ Our decision in the present research to label one of the latent profiles as ‘Learners’ was a reflected in our realization that many of the ethics and values that these students espouse are congruent with the message contained in this book.

Utah State University also offers a three day first-year-experience course that is taken by roughly 2300 of our incoming freshmen. The course explores topics like resilience, academic preparedness, and study skills, and further explores the mission of Utah State University and the importance of *Becoming a Learner*. In considering the results of the current study, we subsequently hypothesized that student transitions from the Investor and Ambivalent profiles might be closely associated with how students responded to the orientation and first-year-experience interventions. A further analysis revealed meaningful trends associated with student transition from the Investor and Ambivalent profiles to the Learner profile.

Specifically, students who attended the in-person student orientation and who reported high levels of engagement with the presentation regarding the value of a liberal education were the most likely to make this transition. Even after accounting for factors like high school GPA, freshman GPA, and enrollment in the first-year experience course, high engagement with the 40-minute presentation during orientation emerged as the only factor statistically associated with transitioning to the Learner profile.

Beliefs Matter

Amongst those students who made this transition from the other profiles to Learner, those that were assigned to first-year experience instructors with high ratings on student evaluations also experienced significantly higher freshman GPAs and second-to-third-year retention rates than their peers. High ratings were achieved by instructors who performed better than average on student endorsements of the following elements of the course:

1. I understand *why* I am enrolled in higher education courses.
2. I have learned what an educated person is, and *how an educated person contributes to his or her community*.
3. I have learned the role *general education* plays in my education.
4. I have learned the role the *major* plays in my education.

5. I have learned *how best to engage myself* in the process of becoming an educated person.
6. The first-year-experience course helped me consider the *reasons* I am seeking a university degree.
7. I have learned the importance of selecting a major that fits my *interests*.
8. My first-year-experience instructor explained the first-year-experience course objectives.

This finding is particularly meaningful because those students whose first-year-experience course was characterized by these values posted significantly higher GPAs during their freshman year than students in courses with lower ratings. This is remarkable because both students assigned to high rated instructors and low rated instructors entered the university with similar high school GPAs. This finding reveals the important influence that first-year experience course and dedicated instructors can have in solidifying students' commitment to their studies.

Shaping Student Outcomes

Surprising student outcomes were achieved particularly for Investors who, through first-year programming, transitioned from being Investors to being Learners. While this group of students was not more likely to have higher GPAs than other groups in high school, their GPAs were significantly higher than most other groups in college after transition to the Learner profile (see Table 2). Additionally, Investors who transitioned to be Learners experienced a first-year retention rate of 91%, which was 15 percentage points above the mean of all groups, 76%. More importantly, these same students experienced a second-to-third-year retention rate of 81%, which was the highest retention rate posted of all profile types (see Table 2). These results indicate that a significant impact on student success may not be exclusively attributable to *being* a Learner but, more importantly, to the transitional effects of *becoming* a Learner. It is possible that the transition from Investor to Learner makes the importance of being Learner more salient to these students.

Table 2. Mean values for high school GPA, first- and second-year GPA, and first- and second-year retention rates by Most Likely Transition Pattern

<i>Pattern</i>	<i>Time 1 Profile</i>	<i>Time 2 Profile</i>	<i>Count</i>	<i>H.S. GPA</i>	<i>GPA Year 1</i>	<i>GPA Year 2</i>	<i>Ret. Year 1</i>	<i>Ret. Year 2</i>
<i>A</i>	<i>Investor</i>	<i>Learner</i>	61	3.70	3.41	3.38	91%	81%
<i>B</i>	<i>Investor</i>	<i>Investor</i>	487	3.60	3.00	3.23	73%	66%
<i>C</i>	<i>Investor</i>	<i>Ambiv.</i>	16*	3.34	2.40	2.81	69%	50%
<i>D</i>	<i>Learner</i>	<i>Learner</i>	974	3.61	3.01	3.21	76%	63%
<i>E</i>	<i>Learner</i>	<i>Investor</i>	43	3.82	3.33	3.51	83%	61%
<i>F</i>	<i>Learner</i>	<i>Ambiv.</i>	48	3.56	2.79	3.03	73%	50%
<i>G</i>	<i>Ambiv.</i>	<i>Learner</i>	67	3.45	2.90	3.08	79%	69%
<i>H</i>	<i>Ambiv.</i>	<i>Investor</i>	4*	3.49	2.54	3.21	50%	75%
<i>I</i>	<i>Ambiv.</i>	<i>Ambiv.</i>	5*	3.44	2.85	2.21	80%	60%

Note. *The cell values are problematically small, making the associated statistics unreliable;

Ret. = retained; *H.S.GPA* = high school GPA.

Start with Beliefs

In this age when incoming students are being offered a wide array of narratives about the value of a college education, this research suggests several important implications. For example, while the liberal arts tradition enjoys a rich heritage of being the vanguard of the American education system, the breadth and depth of the liberal experience has recently come under fire for a lack of obvious or explicit occupational relevance. This research supports a view that the liberal arts are still worth defending and may be more effectively aligned with student well-being than the alternatives. Given the findings presented above, expecting more from a university experience than a job offer and a high paying salary may be an integral part of student development and success.

Shifting student beliefs regarding the purposes of a university education is not only possible but can subsequently help students achieve greater academic outcomes if those beliefs align with a more holistic view of student success. Indeed, it is imperative that each and every university help their students capture the spirit, philosophy, and intent of developing, through educational experiences, the *entire self*—something Cicero referred to as *humanitas*⁷—not exclusively or even primarily for occupational aims. As is shown above, helping students believe that the university is designed to achieve a more than job placement produces significant shifts in student attitudes and behaviors that are intimately tied to meaningfully improved GPAs and retention rates, as well as other important outcomes.

Spreading this culture of learning and academic engagement can be an integral function of each university's orientation and first-year-experience programs. As Alexander Astin so incisively pointed out, "college environment is determined, to a large extent, by the kinds of students at the institution."⁹ When students are invited, from the outset, to align their beliefs and self-image more fully with the rigor and immersive nature of university-level coursework, this ontological maturation yields dividends in positive student attitudes, behaviors, and academic outcomes.

Footnotes

[1] Schreiner, L. A. (2010). The “Thriving Quotient”: A new vision for student success. *About Campus*, 15(2), 2-10.

[2] Vallerand, R. J., Pelletier, L. G., Blais, M. R., Briere, N. M., Senecal, C., & Vallieres, E. F. (1992). The Academic Motivation Scale: A measure of intrinsic, extrinsic, and amotivation in education. *Educational and psychological measurement*, 52(4), 1003-1017.

[3] Deci, E. L. and Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum Press.

[4] A Latent Profile Analysis is useful to the extent that each participant can be adequately assigned to a profile of similar responders, while at the same time avoiding the problem of identifying too many profiles, such that the distinction of each profile gets lost in a larger fray. The present study examined solutions from as little as two to as many as eight profiles. A combination of the Bayesian Information Criteria, entropy, parsimony, and the Vuong-Lo-Mendell-Rubin test were used to determine the model with best fit.

[5] Specht, J., Luhmann, M., & Geiser, C. (2014). On the consistency of personality types across adulthood: latent profile analyses in two large-scale panel studies. *Journal of personality and social psychology*, 107(3), p. 564.

[6] A Latent Transition Analysis was performed to compare student responses as incoming freshmen to student responses at the end of the first year. The sample for the second year survey included responses from only 651 of the original 1,771 students. Maximum information likelihood was used to extrapolate the latent profile membership of the remaining students.

[7] The role that a Citizen Scholar can play in society was perhaps most prominently captured in the book *De Oratore*—the work of Marcus Tullius Cicero, a Roman politician and lawyer who wrote passionately about the importance of acquiring both *humanitas* (humanity) and *exercitatio* (professional training). Only through this careful balance of both humanity and acquired skill, Cicero argues, can individuals achieve the pinnacle of their potential.

[8] Sanders, M. (2012). *Becoming a Learner*. Logan, UT: Institution for Communication & Leadership.

[9] Astin, A. W. (1965). *Who goes where to college?* Science Research Associates, p. 3.

[10] Washington Monthly (2017). 2017 College Guide and Rankings: National Universities. Retrieved from <https://washingtonmonthly.com/2017college-guide?ranking=2017-rankings-national-universities>

[11] Noyens, D., Donche, V., Coertjens, L., van Daal, T., & Van Petegem, P. (2018). The directional links between students' academic motivation and social integration during the first year of higher education. *European Journal of Psychology of Education*, 1-20.

[12] Tinto, V. (1987). *Leaving college: Rethinking the causes and cures of student attrition*. University of Chicago Press.