

Evaluating the Effectiveness of an Academic Success Program: Showcasing the Importance of Theory to Practice

Andrea M. Pope, Ph.D. James Madison University andreampope@gmail.com Sara J. Finney, Ph.D.

James Madison University
finneysj@jmu.edu

Morgan Crewe
James Madison University

Abstract: To provide an example of outcomes assessment that aligns with student affairs standards (Finney & Horst, 2019a), we share our process of assessing a mandated eight-week program for students on academic probation. Furthermore, our process highlights the value of using existing theory and research to inform assessment and program redesign efforts (Pope et al., 2019). Using a high-quality theory-based measure, we assessed several student learning and development outcomes (e.g., institutional commitment, academic self-efficacy) that theory and research indicated are necessary for students to achieve academic success. Based on the outcomes assessment results, we identified which aspects of the program seemed to be working and which aspects needed improvement. Finally, we close by providing recommendations for other professionals seeking to build and assess high-quality student affairs programs informed by theory and research.

Keywords: academic success, retention, theory to practice

According to professional standards, student affairs professionals are responsible for building and assessing high-quality educational programming (Finney & Horst, 2019a). More specifically, they are expected to use theory and research to build evidence-informed programs that should work and then engage in outcomes assessment to examine if these programs do work (Pope et al., 2019). Unfortunately, although there are many examples in the student affairs literature of assessing educational programs, there is less guidance on using theory and empirical research to build and improve these programs. Thus, we share how we integrated research, programming, and assessment to redesign an academic success program and focus on malleable outcomes. By providing such an example, we hope to advance practice in the student affairs profession by illustrating the value of aligning programming and assessment efforts with existing theory and research (Finney & Horst, 2019b).

The Academic Success Program

The Academic Success Program (ASP) is an eight-week course offered each fall for students on academic probation or academic suspension. While completing ASP, students—including those technically suspended—are enrolled full-time (i.e., a minimum of 12 credit hours). The purpose of ASP is to equip students with the academic skills needed to achieve good academic standing (i.e., a cumulative GPA of 2.0 or higher). ASP is housed within the Division of Academic Affairs and coordinated by a graduate student enrolled in the M.Ed. in College Student Personnel Administration (CSPA).

During the eight-week program, approximately 90 to 100 students meet once a week in small to medium-sized groups (e.g., 10 to 25 students) for 1.5 hours to participate in discussion and activities. Class sessions focus on various topics, including time management, test-taking skills, goal setting, and campus resources. Undergraduate peer facilitators co-facilitate the classes after undergoing a two-day training to learn about the suspension/academic probation process, meet their co-facilitators, briefly review the ASP curriculum, and prepare to implement the first week's lesson plan. The ASP coordinator (i.e., the CSPA graduate student) supervises the peer facilitators, manages the ASP curriculum, and oversees program implementation.

Although ASP staff have collected data on the ultimate or distal outcome (i.e., cumulative GPA) since the program's inception, they did not engage in outcomes assessment before the process described below. There were no explicitly stated student learning and development outcomes until recently, meaning there was no articulation of what changes in students' knowledge, attitudes, and skills were necessary to achieve the GPA goal. With no specified outcomes, the intended purpose of each lesson or activity was unclear. As a result of this lack of clarity, the curriculum frequently changed with little justification. For example, one year, the curriculum included a unit on writing skills. Another year, a unit based on the StrengthsFinder assessment replaced the writing unit. The next year, the ASP coordinator replaced the StrengthsFinder unit, too. During this time, the ASP coordinators did not provide documentation to explain the logic of these changes or evidence to support these modifications. Discussions with program facilitators indicated this fluidity in programming reflected, in part, a lack of understanding of the knowledge, attitudes, and skills theoretically and empirically linked to academic success and the programming necessary to impact those outcomes.

Envisioned as a powerful intervention for an at-risk population, ASP needed an intentional, evidence-informed curriculum aligned with specified outcomes. The ASP coordinator recognized this need and reached out to us in the Center for Assessment and Research Studies to improve the program. With our guidance, the ASP coordinator devoted over 75 hours to re-envisioning the program outcomes and, in turn, the curriculum, as discussed below.

Redesigning ASP Programming and Assessment

The first step to redesigning the ASP curriculum was to identify appropriate student learning and development outcomes based on the literature (Pope et al., 2019). We needed to decide what knowledge, attitudes, and skills ASP students should cultivate to foster academic success and retention. This process involved reviewing both theory and research related to postsecondary academic success.

When reviewing the literature, we found SuccessNavigator—an assessment developed by ETS (Markle et al., 2013). This assessment measures essential skills related to academic success and retention. Although we were not initially interested in using SuccessNavigator as an outcome measure, we relied heavily on the research and theory underpinning its development when redesigning the ASP curriculum (Markle & O'Banion, 2014). When

developing SuccessNavigator, ETS staff reviewed academic success and retention literature in higher education and educational psychology journals. Through this review, they identified 10 skills linked to academic success and persistence in college (see Table 1). They classified these skills into four general areas: (a) academic skills, (b) commitment, (c) self-management, and (d) social support.

Using these skills as a guide, the ASP coordinator drafted an initial set of student learning and development outcomes that should increase cumulative GPA (i.e., the ultimate or distal outcome), based on theory and research. Specifying these outcomes allowed the ASP staff to engage in curriculum-to-outcome mapping for the first time (see Table 2). From this mapping process, we were pleased to find that the ASP curriculum aligned with many outcomes in the academic success literature, including organizational skills, tools for combating test anxiety, and institutional support resources. However, no programming existed for several key outcomes (e.g., stress management, academic self-efficacy, institutional commitment). Furthermore, some of ASP's curricular elements were not supported in the academic success research (e.g., instructing students on how to take Cornell-style notes) and, thus, they did not map to any of the research-based outcomes. In the future, the ASP coordinator could remove these activities to increase efficiency or provide additional time for new programming aligned with the outcomes. Ultimately, we decided to use SuccessNavigator to assess the newly specified outcomes. Based on the results, we could then identify which outcomes required additional or modified curriculum.

Method

Below, we describe the procedure, participants, and measures used to assess ASP.

Table 1. ETS SuccessNavigator General Skills and Subskills.

General Skill	Subskill	Definition			
Academic Skills Strategies and tools	Organization	Strategies for organizing time and work			
for academic success	Meeting Class Expectations	Doing what's expected to meet course requirements including in-class behaviors and assignments			
Commitment Active pursuit toward	Commitment to College Goals	Perceived value of and determination to excel in and complete college			
an academic goal	Institutional Commitment	Positive evaluations of and attachment to the institution			
Self-Management Reactions to both academic and daily	Sensitivity to Stress	Tendency to feel upset or discouraged when placed under pressure or burdened by many demands on one's time			
life stressors	Academic Self-Efficacy	Belief in one's ability to achieve in an academic setting			
	Test Anxiety	Reactions to test-taking experiences, including negative feelings and thoughts			

General Skill	Subskill	Definition			
Social Support Connecting with people and resources for student success	Connectedness	General sense of engagement and belonging			
	Institutional Support	Attitudes about and tendency to seek help from established resources			
	Barriers to Success	Most common barriers include financial pressures, conflicting work schedules, family responsibilities, and limited institutional knowledge			

Note. Higher scores reflect higher levels of each construct with the exception of Sensitivity to Stress, Text Anxiety and Barriers to Success. Higher scores for these subskills reflect lower sensitivity to stress, lower test anxiety and lower barriers, respectively.

Table 2. Mapping of ASP Student Learning Outcomes to Programming.

SuccessNavigator Subskill	Newly Created Student Learning Outcomes	Existing Programming	
Organization	Report increased use of strategies for organizing coursework and time.	Yes	
Meeting Class Expectations	Report an increase in meeting requirements of courses.	Yes	
Commitment to College Goals	Report an increase in perceived value of college.	Yes	
Institutional Commitment	Report an increase in attachment to the institution.	No	
Sensitivity to Stress	Report a decrease in feelings of frustration or discouragement associated with academics.	No	
Academic Self-Efficacy	Report an increased belief in one's ability to succeed in an academic setting.	No	
Test Anxiety	Report a decrease in negative thoughts and feelings during testing.	Yes	
Connectedness	Report an increased sense of belonging.	No	
Institutional Support	Report an increase in help-seeking attitudes and actions.	Yes	

Note. Each SuccessNavigator subskill score was associated with an outcome except for Barriers to Success. ASP could not implement programming to reduce such barriers; thus, we did not have an outcome associated with barriers to success.

Procedure and Participants

In the fall of 2018, students completed SuccessNavigator—a proctored, computerized assessment—before they engaged in ASP (i.e., pre-test) and after its completion (i.e., post-test). Students were not allowed to move to the next section of SuccessNavigator (e.g., on-line instructions, items, individualized report) until everyone completed the current section. This process was employed to slow response rates to produce more thoughtful answers (Barry & Finney, 2009). All students completed all items within the allotted 30 minutes. If students completed the assessment in less than five minutes (i.e., an indicator of thoughtless responding), their scores were considered invalid, and they had to complete the assessment again. Fortunately, only one student had to retake the assessment for this reason during the pre-test administration.

Ultimately, 116 students were mandated to complete ASP. Of those students, 22 did not attend the mandatory pre-test session. As a result, ASP staff dropped these students from the program. Thus, 94 students completed the pre-test. An additional 21 students dropped out of ASP at some point during the eight weeks (i.e., 22% attrition rate). The remaining 73 students completed the proctored post-test during the last class period. Of the 73 students who completed the program, 49.3% were male, and 69.9% identified as White, with the remaining students identifying as Black (11.0%), Hispanic (8.2%), or Asian (8.2%). The average age was 20.6 years—ranging from 18 to 26. In comparison to the university population, ASP students were more likely to be male and identify as members of a historically underrepresented racial or ethnic group.

Measure

Each SuccessNavigator subscore reflects student responses to between 7 and 11 Likert-type items. Students responded to each item using a six-point scale, ranging from strongly disagree to strongly agree. Students received a standardized score for each of the 10 subskills. The mean of the standardized distribution is 100, with a standard deviation of 15. Scores below 100 indicated below average competency relative to the test-taker population.

Using the standardized scores, SuccessNavigator creates three skill-level categories for each skill: Low, Moderate, or High. The three categories are relative to other test-takers across the United States. The Low category represents the bottom 25% of scorers, the Moderate category represents the middle 50% of scorers, and the High category represents the top 25% of scorers.

SuccessNavigator has been shown to produce reliable scores. Furthermore, the test developers provide ample validity evidence to support score interpretation (i.e., factor structure, relations with other constructs; Markle et al., 2013). SuccessNavigator scores have also been shown to function equivalently across time (Rikoon & Midkiff, 2018),

¹ We examined the pre-test scores of the individuals who dropped out and found that they did not significantly differ from those who participated in all eight weeks of programming in respect to the 10 *SuccessNavigator* subskills. Additionally, the students who dropped out were similar with respect to age and ethnicity, although a larger percentage of the students who dropped out were male compared to those who did not drop out.

allowing for longitudinal assessment of change in each skill, as we did in the current ASP evaluation.

Results

We examined students' skill levels before and after ASP. First, we present the pre-test results by ordering skills from highest to lowest average score. Then, we present the post-test results, organized by expectations of pre-post change.

Pre-test Results

Understanding students' skill levels before beginning ASP reveals the skills for which students have the greatest opportunity to experience a change in performance. ASP students entered the program with above average institutional commitment (see Figure 1). They tended to feel a strong attachment to and positive affect for the university. This finding may lead one to believe there is little need for programming designed to increase students' commitment to the university. However, there was substantial variability in pre-test scores (SD = 13.01; see Table 3). Thus, even though the mean was above average, a considerable number of students indicated below-average institutional commitment before engaging in ASP (i.e., 19% of students were Low at pre-test; see Figure 2).

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Figure 1. Average Pre-test and Post-test Scores for ASP Participants by Subskill Area.

Note. Subskills are ordered from the highest average score at pre-test (institutional commitment) to the lowest average score at pre-test (institutional support).

■ Pretest ☑ Posttest

Table 3. Means and SDs for each SuccessNavigator Subskill at Pre-test, Post-test, and Change over Time.

	Pre-test		Post-test		Cha	Change		CI of Change	
Subskill	М	SD	М	SD	М	SD	Lower	Upper	d
Organization	93.43	14.67	101.15	14.95	7.72*	11.66	5.00	10.44	0.66
Meeting Class Expectations	89.19	14.71	100.45	12.05	11.27*	14.28	7.94	14.60	0.78
Commitment to College Goals	97.94	15.57	98.94	15.22	1.00	11.09	-1.59	3.59	0.09
Institutional Commitment	105.23	13.01	103.31	14.95	-1.93	9.61	-4.17	0.32	-0.20
Sensitivity to Stress	92.38	17.60	100.44	16.01	8.06*	12.75	5.09	11.04	0.63
Academic Self-Efficacy	98.22	17.21	100.42	14.20	2.20	15.90	-1.51	5.91	0.14
Test Anxiety	92.86	17.11	101.58	17.02	8.72*	14.13	5.42	12.02	0.62
Connectedness	93.28	19.81	103.03	14.70	9.75*	14.99	6.25	13.25	0.65
Institutional Support	86.49	18.42	99.87	13.88	13.38*	16.22	9.60	17.16	0.82
Barriers to Success	100.35	15.27	106.71	13.74	6.36	10.69	3.87	8.86	0.59

Note. SD change = SD of differences scores, which represents variability in change across students (i.e., some students changed more from before to after ASP). Cl of change = 95% confidence interval about the average change. ES = effect size. d = Cohen's d effect size, which was computed by dividing the mean change by the standard deviation of the difference scores. *p < .05.

Students had above-average scores on barriers to success, which indicates the extent to which various external factors (e.g., financial pressures, family responsibilities) negatively impacted academic success was relatively low. Given our goal was to assess the impact of ASP on malleable student success outcomes, no outcomes associated with barriers to success were articulated. ASP could not be expected to impact the degree to which students experienced external barriers. With that said, descriptive analyses provided insight into the challenges incoming ASP students faced outside the classroom. Fortunately, on average, students did not experience external barriers to success to a greater extent than other students across the country. Given only 15% of our students received an income-based federal Pell grant in 2017 (U.S. Department of Education, 2017), this result is not surprising.

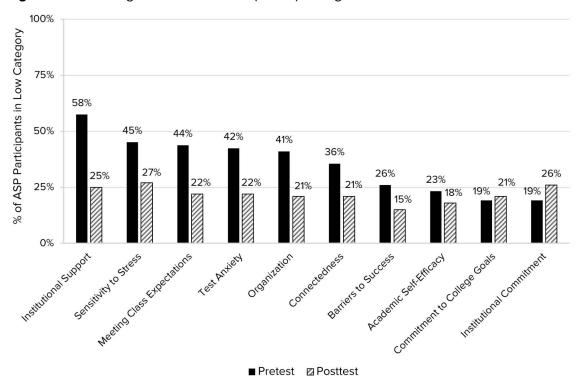


Figure 2. Percentage of ASP Students (n = 73) Categorized as Low at Pre-test vs. Post-test.

Note. For example, when examining Institutional Support, of the 73 students who completed ASP, 58% (42 students) were identified as low at pre-test, whereas 25% (18 students) were identified as low at post-test. Subskills are ordered from greatest percentage of low scorers at pre-test (institutional support) to smallest percentage of low scorers at pre-test (institutional commitment).

ASP students scored similarly to other students across the nation on commitment to college goals and academic self-efficacy. Incoming ASP students did not value college less than other students. This finding was encouraging. Commitment to obtaining a degree is one of the strongest predictors of college persistence (Porchea et al., 2010). Although, on average, ASP students believed in their ability to be academically successful, the variability in self-efficacy scores was relatively large (SD = 17.21). A substantial number of students had below-average academic self-efficacy (i.e., 23% of students were Low at pre-test).

On average, ASP students scored lowest on academic skills (i.e., organization, meeting class expectations), self-management (i.e., test anxiety, sensitivity to stress), and social support (i.e., connectedness, institutional support), with the two lowest skills being meeting class expectations and institutional support. Meeting class expectations, or the extent to which students do what is expected of them regarding coursework, includes behaviors such as coming to class on time and promptly turning in assignments. The pre-test results suggested ASP students had ample room for improvement in this area (i.e., 44% of students were Low at pre-test). Students who score Low on institutional support do not know when help is needed, rarely ask questions, are unaware of resources on campus, or never use support. Unfortunately, nearly 60% of ASP students were Low at pre-test. This finding is troubling; students who do not engage in adaptive help-seeking tend to have lower academic performance (Finney et al., 2018). Thus, a crucial component of ASP

should focus on teaching students about available resources and unpacking why they are rarely used.

Coupling the curriculum-outcome map in Table 2 with pre-test results enabled us to anticipate our post-test findings. First, we expected outcomes with high pre-test scores (i.e., institutional commitment, barriers to success) to remain high whether programming existed or was lacking. For these outcomes, high post-test scores should not be attributed to ASP. Second, we expected outcomes with low-to-moderate pre-test scores and limited-to-no programming (i.e., connectedness, sensitivity to stress, academic self-efficacy) to remain low-to-moderate at post-test. For these outcomes, any positive changes from pre-test to post-test should not be attributed to ASP. Third, we expected outcomes that were low-to-moderate at pre-test and were targeted through ASP programming (i.e., institutional support, meeting class expectations, test anxiety, commitment to college goals, organization) to increase from pre-test to post-test.

Post-test Results

Below we organize results by pre-test levels to align with our expectations above.

Subskills High at Pre-test

We did not observe a significant or practical change from pre-test to post-test on institutional commitment and barriers to success (see Table 3). This lack of change was expected, given no programming was associated with either construct. Notably, however, the percentage of students with Low institutional commitment increased from 19% at pre-test to 26% at post-test (see Figure 2). These results suggest that even though the average institutional commitment score was high, a substantial number of students may still need intentional programming because they are on the low end of the institutional commitment scale.

Subskills Low-to-Moderate at Pre-test with No Associated Programming

We observed a significant, positive change from pre-test to post-test on students' connectedness and sensitivity to stress, despite no intentional programming. If this result replicates in future assessments, it may be that informal activities within ASP (e.g., making friends) are positively impacting connectedness and sensitivity to stress. Alternatively, the change may be attributable to maturation or students' experiences outside of ASP. It should be noted, more than 50% of the students who were Low on sensitivity to stress at pre-test (i.e., high levels of stress; unfavorable result) and 42% of the students who were Low on connectedness at pre-test were still Low at post-test (see Figure 3). These results suggest these outcomes remained a challenge for many students.

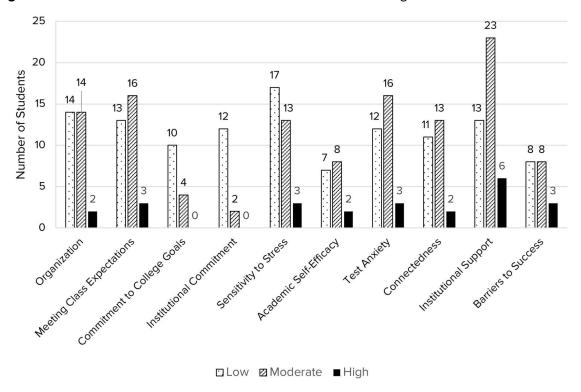


Figure 3. Distribution of Students at Post-test for Students Categorized as Low at Pre-test.

Note: For example, of the 30 students categorized as low on Organization at pre-test, 14 remained low at post-test (no change), 14 increased to moderate, and 2 increased to the high category after completing ASP.

There was no statistically significant change in students' academic self-efficacy. More than 40% of the students who were Low on self-efficacy at pre-test were Low at post-test. Although expected, given the lack of programming targeting self-efficacy, the results suggest an area of need: Students do not seem to develop academic self-efficacy independently.

Skills Low-to-Moderate at Pre-test with Associated Programming

Given pre-test results and the existing ASP curriculum, we hypothesized growth on five outcomes: (a) institutional support, (b) meeting class expectations, (c) test anxiety, (d) organization, and (e) commitment to college goals. As predicted, scores significantly improved for institutional support and meeting class expectations (see Table 3). Half of the students who scored Low on meeting class expectations at pre-test increased to Moderate by post-test. Nearly 10% increased to High (see Figure 3). Similarly, only 31% of students who scored Low on institutional support at pre-test were still Low at post-test. Scores significantly improved, albeit more modestly, for test anxiety and organization. However, nearly 50% of the students who scored Low on organization at pre-test were still Low at post-test.

Unfortunately, although there was programming designed to increase commitment to college goals, there was no significant change. More than 70% of students who scored Low at pre-test were still Low at post-test. These results suggest current programming may (1) not be implemented well or (2) be insufficient to impact commitment to college goals.

These results provide some initial evidence suggesting that the ASP curriculum targeting these outcomes may increase attitudes and skills, particularly for institutional commitment and meeting class expectations. However, for the five outcomes with intentional programming, between 21% and 25% of ASP students were Low at post-test, indicating room for improvement.

Discussion

We gathered data to inform conversations about the efficacy of ASP and potential next steps. We entered this initial assessment knowing there were limitations to our measurement and data collection design, which would impact the inferences we could make about program effectiveness. Thus, before sharing implications and next steps, we discuss limitations and lessons learned.

Limitations

We relied exclusively on indirect (i.e., self-reported) measures of the ASP outcomes. Although these data provided insight into students' perceptions of their proficiency, the utility of self-reported data for skills assessment is limited. For each outcome, it would have been preferable to develop additional measures that required students to demonstrate their knowledge or skills. For example, we articulated an indirect outcome for the sensitivity to stress subskill (i.e., students will report a decrease in feelings of frustration or discouragement associated with academics). However, we could have also articulated a knowledge-based outcome for sensitivity to stress (e.g., students will be able to describe two stress management techniques and explain how each technique can minimize the effects of stress). We could then assess via students' written responses if an understanding of stress management techniques relates to lower self-reported sensitivity to stress. Suppose students reported high sensitivity to stress after completing ASP. In that case, results associated with the knowledge-based outcome could uncover why this occurred and how to adjust ASP to improve future outcomes. Direct measures could include multiple-choice tests (e.g., knowledge of strategies to organize time), role-playing performances (e.g., ability to ask for help), or other types of assessments.

Another limitation is the lack of implementation fidelity data. When discussing programming to increase retention, Tinto (2006) noted, "The regrettable fact is that many good ideas are not well implemented or implemented fully" (p. 8). Implementation fidelity data uncover the extent to which programming is implemented as planned (Fisher et al., 2014). It allows one to identify whether poor results reflect ineffective programming or poor implementation. Without this data, making inferences about student learning as a function of the program becomes a tenuous proposition (Gerstner & Finney, 2013). For example, despite intentional programming, there was no change in commitment to college goals. One conclusion might be that this intentional programming did not work. However, a second conclusion is that programming was not implemented as planned (e.g., peer facilitators ran out of time, students were disengaged). This is a plausible hypothesis given the limited training of peer facilitators. If we assumed programming was not effective when it was not implemented correctly, we would waste time and resources redesigning programming that might be effective if implemented well. Unfortunately, without

implementation fidelity data, we cannot select between these two conclusions (Smith et al., 2017).

Another limitation is the lack of a detailed curriculum map. To collect implementation fidelity data, we need a clear articulation of which programming components are expected to impact which outcomes (Smith et al., 2019). This mapping requires an articulation of program theory (i.e., how—and why—programming should be effective). In this case, there were clear, research-based links among the intermediate student learning outcomes (e.g., organization, institutional support) and the distal outcome (cumulative GPA). However, there was no articulation of the links among the program components (e.g., lectures, activities, assignments) and the intermediate student learning outcomes. As shown in Table 2, when asked, Was the ASP curriculum designed to impact this specific outcome?, the ASP staff could only provide general yes or no responses. They did not conduct detailed curriculum-to-outcome mapping. Given the lack of specificity regarding the links among program components and outcomes, we cannot use these assessment results to recommend specific curricular changes (Smith & Finney, 2020). We can only note that the programming in place may need to be modified.

Use of Results to Inform ASP Programming

The preliminary results suggest one outcome is well-suited for a research-based curriculum (re)design: academic self-efficacy. There was no significant change in students' self-efficacy, and ASP currently has no intentional programming linked to self-efficacy. Commitment to college goals also had no significant change. However, ASP includes programming built to impact this outcome. Given students' commitment to college goals is a malleable outcome that can be impacted by programming (Grant-Vallone et al., 2003), this lack of change indicates programming is either ineffective or not implemented well. Thus, before recommending a curriculum redesign associated with commitment to college goals, we recommend examining whether the current results reflect poor implementation. Hence, we focus the discussion on academic self-efficacy.

Regarding self-efficacy, 23% of students reported Low academic self-efficacy at pre-test, which is problematic given the empirically supported relation between academic self-efficacy and performance (Robbins et al., 2004). Fortunately, there is extensive research on self-efficacy in general and on academic self-efficacy in particular (Schunk, 1985), including research on self-efficacy interventions. Drawing from this literature, the ASP coordinator could construct a detailed logic model to describe how ASP will intentionally support students to develop academic self-efficacy. For example, attributional feedback can increase self-efficacy (Jain et al., 2007; Schunk, 1983). With attributional feedback, a student's successes are attributed to ability and—more importantly—effort. For example, an ASP assignment might ask students to reflect on past academic success and explain how they achieved that success, focusing on their effort. Importantly, implementing such an intervention and assessing its effectiveness requires dedicated time for reading research, designing curriculum, and training facilitators.

Use of Results to Inform ASP Assessment

To provide more meaningful information about program effectiveness, we recommend three assessment-related changes. First, the ASP coordinator should articulate knowledge-based outcomes for each subskill that can be assessed via direct measures. Then, measures should be identified or developed to assess these new knowledge-based outcomes.

Second, they should create an implementation fidelity checklist for ASP. To develop this checklist, the ASP coordinator should make explicit connections among program components and outcomes (Finney & Smith, 2016). The checklist can be used to collect implementation fidelity data and as a training tool when on-boarding facilitators (Swain et al., 2013).

To support the validity of inferences about program effectiveness, the ASP coordinator must identify a comparison group of students who do not engage in ASP and collect data on their outcomes. Students who complete ASP should experience greater outcomes than students who do not complete the program. This companion data would provide more robust evidence of ASP's effectiveness. Identifying an appropriate comparison group will take thought and effort, but it should be a goal.

Connections to Best Practice in Student Affairs

This assessment effort was situated within the larger process of intentionally redesigning ASP to align with theory and research. Our motivations for engaging in this project were multi-fold. First, evidence-informed programming is an expectation for student affairs professionals. According to professional standards (Finney & Horst, 2019a), student affairs professionals must build programming that reflects the best available evidence in student development, cognition, student success, and a wide variety of other domains relevant to practice. Moreover, evidence-informed programs can be more meaningfully assessed than programs developed with less intentionality (Bresciani, 2010). It becomes nearly impossible to use assessment results for program improvement without a clear articulation of why programming should impact the outcomes (Pope et al., 2019). Simply put, it is difficult to fix something when it breaks without a thorough understanding of how it was supposed to work in the first place.

Given the importance of evidence-informed programming for student affairs practice, we close by providing recommendations for professionals seeking to build and assess such programs.

- Before asking the assessment question, Does my program work?, student affairs
 professionals must answer the programming question, How should my program work?
 Attempting to answer the former question without a clear response to the latter will
 result in inefficient use of assessment resources. Assessment works best when used
 in a confirmatory way to determine whether programs that should work actually do
 work.
- 2. One of the most important steps when building evidence-informed programs is to specify intermediate student learning outcomes (e.g., knowledge, attitudes, skills) that

- have been empirically linked to the program's distal outcome (e.g., GPA, leadership skills, cultural competence). These intermediate outcomes will dictate necessary programming and outcome measures.
- 3. When building evidence-informed programs, professionals must invest a significant amount of time on the front-end to save time in the long-term. The ASP coordinator who led the ASP program redesign effort spent 75 hours consuming research, specifying intermediate outcomes, and developing new programming. Now that evidence-informed programming exists, there is no need for future ASP coordinators to spend dozens of hours re-creating programming each year. Instead, the ASP coordinator can focus on assessing and improving the existing evidence-informed programming.
- 4. For those engaging in the process of building evidence-informed programming, publish your work. There are few theory-to-practice models with enough detail to effectively guide student affairs professionals through the specifics of applying research to practice. We provide this study as an illustration, but more examples are needed.

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