

## Using the LASSI to Engage Metacognitive Strategies that Foster a Growth Mindset in College Students Placed on Academic Probation

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At Clarke University, students placed on Academic Probation are required to create an Academic Success Agreement, meet with the Learning Specialist regularly, and take the 1-credit course CU100: College Study Strategies. In designing and teaching the course, I created authentic activities that engage students in setting goals and using strategies that will increase this success. This goal setting and self-reflection facilitates growth mindset in that it challenges them to think about their strengths and weaknesses, strategies they have used in the past, and how they can use the new strategies to improve their performance. Additionally, students are encouraged to reflect on the campus resources available to them that will help them with achieving their goals and make plans for implementing those resources. Since most students on probation do not yet have a growth mindset, the LASSI has been a useful tool for them to quantify their strengths and weaknesses and set the goals for the semester. In essence, the LASSI helps me achieve buy in from the students.

In the first class and in our first regular meeting, students take and share the results of the LASSI and the goals they set for themselves for the semester. Both administrations are included in the course text *16 Weeks to College Success* (Burkart, 2015 <https://he.kendallhunt.com/product/16-weeks-college-success>). In initial one-one conferences and class discussion, students overwhelmingly confirm the scores to be accurate and begin to realize the reasons they have been unsuccessful in college. The scores trigger a desire for success in the students, and in class, I discuss research about metacognition, growth mindset, and grit that confirms that they can succeed, and they own the power to change their success (Bandura, 1994; Marzano, 2001; Dweck, 2007; Ducksworth, 2016). Students are encouraged to create goals in the following areas: time management, reading, organization, use of campus resources, note-taking, studying, and test-taking.

Each week of the 16 week course, students use the course text *16 Weeks to College Success* (Burkart, 2015 <https://he.kendallhunt.com/product/16-weeks-college-success>) and class instruction to practice, reflect on and discuss how they will apply the featured strategy in their courses during week. As part of this reflection, students are directed back to the LASSI scores that correlate with the strategy and their goals. For example, the time management score on the LASSI is used when discussing and practicing new time management strategies, and when students learn new college reading strategies, they are directed to look at the SMI and INP scores. Students also engage in online discussion throughout the week on a Moodle discussion board in responding to questions about the strategies and how they are using the strategies. As part of the discussion, students are required to post a 150 word response to the question and a 50 word response to one of their classmate's responses. At the final conferences, students often

share that the online discussions were a valuable part of their growth, as they saw that they were not alone in their struggles and got ideas from each other.

As assessment of the course curriculum and their own growth and use and application of the strategies, students are required to organize a portfolio around their goals and the strategies they have used. In the portfolio, they are required to include a one-page reflection about how they grew in their goal areas over the course of the semester and how they used the course strategies to facilitate that growth. They are to also include evidence of the campus resources they used and their online discussion blogs. In organizing the portfolio, students are asked to create a section for each strategy covered in class that includes artifacts of how they used the strategy and improved throughout the semester. The pre and post LASSI scores also provide quantitative evidence of growth. For example, in the time management section, students might include pages from their planner, a study schedule, weekly “to do” lists, the semester calendar, and so on. For reading, they may include copies of textbook pages with SQ3R annotations, a short story with critical reading annotations, KWL charts, and concept maps. What is included in the sections is unique to each student and his or her authentic application of the strategies. Key to the assessment is their ability to show understanding of the strategy and artifacts and meaningfully discuss how the application of the strategy related to their strengths and weaknesses and overall growth.

The portfolios are presented in individual 15-minute conferences at midterm and at the end of the semester. In the conferences, the students present their portfolio to the instructor and explain how they are using the strategies and how they are progressing in achieving their goals. At the final conference, students are challenged to reflect on how they will continue to apply and use the strategies in the following semester based on the courses that they will be taking and their understanding of self. The post-LASSI scores are key to this conference because the scores display tremendous growth in all areas of the LASSI and offer evidence of how using the strategies made a difference, which reinforces growth mindset. As a result, the students learn that they are in control of their own growth and engage in metacognitive discussion about how to use the strategies effectively based on their strengths, weaknesses, and the context of their courses.

This use of the LASSI with the course curriculum has proven very successful in helping students succeed. Here are some highlights from an analysis of the course and LASSI data.

**Fall 2016 CU-100 College Study Strategy data** (3 sections, total of 31 students)

- 77% of the students in CU100 (students designated as high retention risk) avoided probation.
- 32% of the students in CU100 achieved 3.0 or higher.
- 70% of the students on probation were no longer on probation the following semester.
- Of the 7 students who ended below 2.0—2 were very close (1.999 and 1.98).
- One student went from probation to Dean’s List (3.76) and had an overall GPA growth of 2.1—in one semester!

**Spring 2017 CU-100 College Study Strategy data** (3 sections, total of 18 students)

- 33% of the probation students achieved semester GPAs over 3.0.
- One of the probation students achieved a 3.87 (Dean’s List) raising his Cum GPA to 2.91.
- 2 students achieved Cum GPAs of 3.0 or greater.
- 66% of the students achieved GPAs of 2.0 or higher and are off probation.
- Returning Probation: Of the 6 students who didn’t reach a Cum GPA of 2.0 or higher, one was very close (1.939). All made tremendous growth for semester GPAs. For example, one earned a 2.21 semester GPA (previous semester and Cum GPA was a .455). Two others were in similar situations (1.37 to 2.899; 1.05 to 2.07) and will likely be off probation after next semester.
- 94% of the students achieved semester GPAs above 2.0.

In analyzing the LASSI first and second test data, it was found that the mean of all categories in the second test scores for students was 50 or higher. This is significant growth and shows that after one semester, all of the students had achieved at least an average level of ability in all of the key areas of success, and most had substantially higher levels of skill.

Additionally, the analysis of the data revealed the following means for lowest scores on the first administration (week 1), the highest scores on the second administration (week 14), and the mean change growth overall.

### LASSI Fall 2016

Lowest Pretest	Highest Post test	Highest change
TST 33.2	SFT 66.48	TST 31.7
MOT 33.5	TMT 67.07	MOT 31.8
TMT 34.1	UAR 68.07	TMT 30.8

**Observation:** The highest areas of change were also the lowest areas on the pre-test. The appearance of motivation in the lowest scores and highest area of change suggests growth mindset, as students seemed to show an increased urgency and sense of ability to change their condition. It also suggests that as motivation improves skill level improves because students begin to use the strategies to improve their academic standing.

### Spring 2017

Lowest pre-test	Highest post test	Highest change
26 SFT	72.85 SMI	45.8 TMT
26.2 UAR	72.5 TST	44.1 SFT
30.4 TMT	70.2 ANX	38.9 INP

**Observation:** Time management is a consistent indicator in both semesters. Its appearance on the lowest area and highest area of change for both semesters suggests that growth in time management positively impacts all other areas of growth and reinforces the curriculum choice of introducing it the first week of class and continual reinforcement of it each week throughout the semester.

In conclusion, this data revealed that the LASSI is a useful tool for facilitating metacognition and growth mindset with college students—particularly with students who have been placed on probation and are enrolled in a college success course that reinforces the LASSI as a measure of growth in applying course strategies.

#### References

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