



2018-2019 MESSINA STUDY ON INTEGRATIVE LEARNING

Abstract

The following document describes the results of the 2018-2019 assessment work around the Messina Learning Outcome of Integrated Learning. These results are also part of a multi-institutional study conducted by Mary Ellen Wade, Dr. Richard Gebauer, Dr. Margaret Leary, Dr. John Sopper, Samantha Kramer, and Tina Muller as a part of Elon University's Center for Engaged Learning Research Seminar on Residential Learning Communities as High Impact Practices.

Mary Ellen Wade, Associate Director of Messina

EXECUTIVE SUMMARY OF PROJECT

Annual Messina assessment initiatives during the 2018-2019 academic year addressed the learning outcome of Integrated Learning. Assessment of this outcome was crafted as a part of a larger multi-institutional research seminar project through Elon University's Center for Engaged Learning. Through this seminar, a Pre- and Post-Test student instrument was developed and piloted in the 2017-2018 that operationalized the AAC&U VALUE Rubric on Integrative Learning. The finalized instrument was used beginning in Fall 2018. All Loyola first-year students were invited to participate in both the Pre- and Post-Tests. Additionally, a reflective assignment was developed by this research group that was scored against the AAC&U VALUE rubric to determine if there was an overlap between student self-reporting of experiences related to integrative learning and actual demonstration of this practice. Messina working groups were encouraged to have their students complete the reflective assignment in the spring 2019 semester and 22 of the 71 groups participated in this part of the project. This report captures the following data- the 133 students that completed both the Pre- and Post-Tests, the 19 students that completed just the Post-Test and writing assignment, and the 34 students completed the Pre-Test, Post-Test, and writing assignment. A decision was made by the organizer of this report to not include analysis for the other data because of the limitations in being able to link student Post-Test results and to their reflective assignment.

KEY FINDINGS

Overall, data collected in this project is promising regarding how our first year students are integrating their learning. Framing language provided by AAC&U related to the Integrative Learning VALUE Rubric states *"Fostering students' abilities to integrate learning—across courses, over time, and between campus and community life—is one of the most important goals and challenges for higher education. Initially, students connect previous learning to new classroom learning. Later, significant knowledge within individual disciplines serves as the foundation, but integrative learning goes beyond academic boundaries."*¹ Many of our students have had little to no experience in understanding or practicing integrative learning prior to arriving at Loyola. The data in this report, particularly the qualitative excerpts from the reflective assignments, suggests that by the end of the first year students are making connections across their curricular and co-curricular experiences. By continuing to formally have students reflect on and provide evidence through assignments or experientially-based work beyond the first year, it is more likely that students will be able to better synthesize and transfer their learning in more advanced independent ways by their senior year.

A notable takeaway from this project is the extent to which students were able to make connections between course content and other elements of their life- including co-curricular involvement, service experiences, conversations with family/peers, and applications to work and internships. By having students respond to a prompt that makes them consider the integration of knowledge across aspects of their life in their first-year, it is hopeful that students will also independently consider these things during the duration of their experience at Loyola. While this project focused on integrative learning, student assignments highlighted ways in which all four areas of Messina's learning outcomes are being experienced by students. Top 3 areas included:

- *Integrated Learning*: specifically, application of academic knowledge beyond the classroom in student clubs/organizations, jobs, and other outlets
- *Critical Understanding*: examples of how students developed habits of reading, writing, or conversation
- *Jesuit Mission and Values*: examples of personal growth/ development during the first-year

When looking at the overall mean differences between the Pre- and Post-Test by category, there was not evidence of significant difference. However, looking at mean differences by question provides more insight on first-year student experiences with Integrative Learning. The table on the next page indicates some highlights in differences between mean

¹ Association of American Colleges and Universities (AAC&U). (2009). INTEGRATIVE LEARNING VALUE RUBRIC. Retrieved from <https://www.aacu.org/value/rubrics/integrative-learning>

scores on Pre-Test and Post-Test questions in each of the four categories. Each category had 3-8 questions.² Students reported increased frequency of experiences from the Pre-Test to the Post-Test on questions that were worded “I have been asked or prompted to do...” Decreased frequency typically occurred around questions that were worded “Even when not asked or prompted to do so...” and were questions that asked students to engage in more self-engaged practices of integrating learning. Examples of this include “use” vs. “adapt,” or moving from “understand” to “respond.” The detailed report includes Pre- and Post-Test means and mean difference for each question. Most question means were a 3 or higher. Scores ≥ 0.1 suggest that this is a more significant change that can inform our practice regarding areas of strength and opportunity related to integrative learning among first year students. Ideally, we would like students to indicate an increase (noted by the use of a \uparrow) from their Pre- to Post-Test mean scores.

Highlights from Pre- and Post-Test Results (n=133)

Below are questions where the difference between Pre- and Post-Test mean scores increased or decreased by ≥ 0.1 . Students were given the following 5-point scale: 1- *Never*, 2- *Sometimes*, 3- *About half the time*, 4- *Most of the time*, 5- *Always*.

		Mean Difference from Pre- to Post-Test
Connections to Experience: <i>Connect relevant experience and academic knowledge</i>	I have been asked or prompted to connect ideas and/or assignments learned in class to life experiences encountered outside of class (e.g., to family life, friends, residential life, extracurricular, social, and political activities)	\uparrow 0.17
	Even when not asked or prompted to do so, I adapt knowledge gained from my experience in residential life (e.g., things I learn from my RA, fellow residents, or living on campus) in other areas of life.	\uparrow 0.10
	Even when not asked or prompted to do so, I can tell on my own when I am succeeding in a class.	\uparrow 0.11
	Even when not asked or prompted to do so, I can tell on my own when I am struggling in a class.	\downarrow 0.12
Connections to Discipline: <i>Sees (makes) connections across disciplines, perspectives</i>	I have been asked or prompted to connect information learned in one class to another class from a different discipline (e.g., a biology class to an art class).	\uparrow 0.12
	Even when not asked or prompted to do so, I provide examples, facts, and/or theories learned in one class in another class from a different discipline (e.g., biology class to an art class).	\downarrow 0.23
Transfer: <i>Adapts and applies skills, abilities, theories, or methodologies gained in one situation to new situations</i>	Even when not asked or prompted to do so, I connect knowledge gained as part of my residential life experience in other areas of my life.	\uparrow 0.11
	Even when not asked or prompted to do so, I adapt and/or apply what I learned in one life situation in order to respond to different situations / issues in my life.	\downarrow 0.12
	When evaluating my learning, I consider feedback from my faculty on an assignment or in a class.	\downarrow 0.18
Reflection & Self-Assessment: <i>Demonstrates a developing sense of self as a learner, building on prior experiences to respond to new and challenging contexts (may be evident in self-assessment, reflective, or creative work)</i>	When evaluating my learning, I consider feedback from my peers on an assignment or in a class.	\downarrow 0.34
	When evaluating my learning, I am able to see growth in my learning over time.	\uparrow 0.21
	When evaluating my learning, I can explain how I have improved compared to prior experiences.	\uparrow 0.11
	When evaluating my learning, I take steps to revise my educational plans for how I will approach learning in the future.	\uparrow 0.13

CONNECTIONS TO EXPERIENCE

There was an increase between Pre- and Post-Tests in students indicating being asked or prompted to connect ideas and/or assignments in the classroom to outside of the classroom. Additional increases included areas on when a student

² The section on Reflection and Self-Assessment contained 3 additional questions related to the residential experience asked only on the Post-Test.

knew if they were succeeding or struggling in a class. However, individual Pre- to Post-Test means decreased in areas of connecting, noticing, and comparing classroom to life experiences on their own. This further dropped by >0.1 for students that also completed the written assignment. However, samples of written assignments indicate students can connect course content to outside experiences.

CONNECTIONS TO DISCIPLINE

A positive difference occurred between Pre- and Post-Test mean scores in students indicating being asked or prompted to connect information from one class to another class in a different discipline. This was even higher for the 34 students that did all three parts of this project. However, there was a notable decrease between Pre- and Post-Test responses related to the question “*Even when not asked or prompted to do so, I **provide** examples, facts, and/or theories learned in one class in another class from a different discipline.*” Except for the 3 additional questions on the Post-Test in the Reflection and Self-Assessment area, this had question had the lowest Post-Test mean score- 2.98 among the $n=133$ group. Surprisingly, a slight increase occurred in mean difference from Pre- to Post-Test in student responses to this question when “**apply**” replaced “**provide**.”

TRANSFER

There was an increase of 0.03 between Pre- and Post-Test mean scores on thinking about connections between classroom learning with life outside of the classroom among students that just completed the test. However, this difference significantly dropped to 0.27 between Pre- and Post-Test scores among the 34 students that completed the writing sample. This is a bit surprising as students provided basic examples in their writing assignments of connecting learning to work study positions, service experiences, conversations with family, and other situations. Even when these narratives were not extensively descriptive, evidence of transfer was occurring.

REFLECTION AND SELF-ASSESSMENT

Mean writing samples were the highest in this area. In their reflections, students described differences from high school to college life- including how they acclimated to managing their own schedule/ time management and discovery in how their learning styles shifted given new expectations of them as college students. This shift included themes reinforced in previous Messina assessments including becoming more confident in actively asking questions and verbally participating in classroom discussions.

SELECTED EXCERPTS FROM STUDENT WORK

[Student describing connections between their fall and spring Messina course pairings] *“In photography, we looked at a variety of different digital photograph mechanisms as well as a variety of different techniques and skills to make a good photograph that tells a story. In English, we looked at a variety of different literary works, including poems, novels, and short stories, as well as a variety of different techniques and skills to improve our critical analysis abilities necessary to be a good, efficient, and observatory reader...I was able to apply some skills learned in photography when analyzing photographs to English class when analyzing poems. To be specific, in photography it is important to take into consideration every aspect of the photograph including lighting, spacing, content, and more. Consequently, in English it is important to do the same but with the title, the amount of words or lines in a poem, and the form of the poem. With the help of photography, I was able to become a better reader and analyzer in English.”*

“I personally participated in service learning at Tunbridge through my Messina writing class, which was a really educational and powerful experience for me. As someone who wants to become a teacher, and is thinking about working in Baltimore, the opportunity to be in a Baltimore city school was really important for me in understanding the environment. I also think that the opportunity to spend time with these students helped me to better understand our community in Baltimore outside of Loyola, which was something that was really impactful for me...It was also really incredible to be able to connect with the Tunbridge students through our pen-pal project that was done through our writing Messina. Our class wrote letters back and forth with young students at Tunbridge, and at the end of the semester we invited them to campus for a read-aloud event at the library. This was something that I will truly treasure, as I could tell how much the opportunity to write and read about topics they were interested in impacted the students we were

interacting with. Through Messina, and an essay assignment on the importance and impacts of literacy, I was shown just how valuable of a skill it is, and how many people are not sufficiently literate. Therefore, helping to encourage a love of literacy, both in reading and in writing, for these students was incredibly important to me. Though it was a small and simple event, and I am sure it will only be one part of an ongoing literacy journey, I still felt like it was something very important to do and really appreciated having the opportunity.”

“Furthermore, the knowledge and skills I learned started to appear in other classes and my day to day life. Such as while at working at the FAC pool we had to test the chlorine levels. In my chem lab we frequently used similar techniques to identify substances in solution. Seeing that connection helped me do better at my job as well as fuel my love of chemistry.”

RECOMMENDATIONS

In reviewing the detailed findings from this project, the following recommendations are proposed:

- In his book designed for college students, Matthew Sanders, author of *Becoming a Learner: Realizing the Opportunity of Education*, proposes that college students must not perceive themselves as students but instead as learners. Sanders provides the following table³ that breaks down the difference:

STUDENT	LEARNER
Waits to be directed	Seeks out opportunities
Learns for the test	Learns for understanding
Is externally motivated	Is internally motivated
Avoids challenging situations	Seeks challenging situations
Sees learning as an obligation	Sees learning as an opportunity
Learns to do	Learns to learn

Messina working groups can examine additional ways in which they may provide opportunities for first-year students to consider their responsibility to be learners as opposed to students at different points throughout the first-year. This could come in a range of low-impact to high-impact opportunities. By implanting activities that scaffold student experiences in the first-year, it is hypothesized that students will move toward more advanced levels of demonstrating integrative learning beyond the first-year.

- If this study is recreated in the future, it is recommended that an additional step occur to follow up with faculty that opt to have students complete the reflective assignment to better understand the steps they may have taken to weave the practice of integrative learning into their Messina course. Steps to undertake this follow up could include a review of course syllabi, administering a survey, or interviews with working groups. The benefit to this project would be eventually having a depository of considerations for other working groups to utilize when planning out ways to foster this outcome in the first year.
- While time-intensive, the reflective assignment provided a more complete picture of the curricular and co-curricular experience of first-year students at Loyola. These assignments could supplement other student self-reported quantitative study reports occurring at Loyola including the National Study of Student Engagement (NSSE) or the Resident Student Survey (RSS). Additionally, the assignments provided a detailed examination of how students were experiencing all four Messina Learning Outcome areas. The detailed findings provide one excerpt for each specific Messina learning outcome- and more could have been included in this document. This was an optional activity but to have a more comprehensive collection of student learning, it is recommended that this or a variation of this project incorporated across all Messina sections as a final reflective summation of their first year.

³ Sanders, M. L. (2018). *Becoming a learner: Realizing the opportunity of education*. (p.17), Plymouth, MI: Macmillan Learning Curriculum Solutions.