CASE STUDY

Exploring the Impact of the Students Assessing Teaching and Learning Program

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ABSTRACT

The Students Assessing Teaching and Learning (SATAL) Program at the University of California, Merced offers assessment support for faculty and program leads while engaging diverse, cross-program undergraduates in students-as- partners experiences in a work setting. Grounded in the Students as Partners (SaP) principles of respect, responsibility, and reciprocity (Cook-Sather, Bovill, & Felten, 2014), our assessment of the SATAL program reveals benefits for both students and faculty acting as co-creators of teaching and learning. Using the SATAL program as an example, we offer readers a logic model to guide the development of student-faculty-staff partnerships and assess the impact of these programs in a more meaningful and consequential manner. We also provide lessons learned from our evolving SATAL program to support others interested in designing sustainable student assisted assessment partnerships.

KEYWORDS

faculty-undergraduates partnerships, students-as-partners in assessment, logic model impact, program assessment.

Across the globe, interdisciplinary faculty have been engaging student voices in their efforts to improve teaching and learning in higher education. Students-as-partners programs place students, faculty, and staff as colleagues and collaborators in the teaching and learning process (Mercer-Mapstone, et al., 2017; Healey, Flint, & Harrington, 2014; Cook-Sather, 2009). Participants in these partnerships have the opportunity to "contribute equally, although not necessarily in the same ways, to curricular or pedagogical conceptualization, decision-making, implementation, investigation, or analysis" (Cook-Sather, Bovill, & Felten 2014, p. 6-7). In their review of Students as Partners (SaPs) literature, Mercer-Mapstone and colleagues (2017) document how this growing movement provides a new approach to student engagement, metacognition, and learning. Additional research provides a tapestry of principles to guide partnership development, including fostering inclusivity, understanding partnership as a process with uncertain outcomes, engaging ethically, and undertaking partnership for transformation that challenges the traditional power structures within universities (Matthews, 2017). A commitment to such principles is central to enacting genuine partnerships. For

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students, these partnerships provide an opportunity to pursue meaningful learning experiences that result in the development of professional skills that will complement their degree completion and transfer to their future careers.

Inspired by Brigham Young University's Students Consulting on Teaching initiative (Sorenson, 2001), we initiated the Students Assessing Teaching and Learning (SATAL) program in 2009 at the University of California, Merced (UCM). Initially, SATAL activities focused on ways to gather assessment data for accreditation purposes. However, with increasing availability of SaP research, SATAL has evolved into a dynamic program that distinctively engages undergraduates and faculty as active collaborators on a variety of assessment tasks that traditionally have been the exclusive purview of instructors (Matthews, 2017). SATAL embodies the mindset that student-faculty partnerships are built on mutual respect and responsibility and offers a reciprocal process for meaningful collaboration (Cook-Sather, 2014). Using a logic model framework, we describe the context for the SATAL program, its priorities and outcomes, its inputs and outputs, and its impact on undergraduate students and faculty at UCM.

CONTEXT FOR SATAL

The University of California, Merced is the newest campus within a large university system in western US, with two of our three schools focusing on STEM disciplines. Soon after its opening in 2005, the campus was designated a Hispanic-Serving Institution conferred by the US Department of Education. Over 75% of its students are first generation college students, 54% are Hispanic/ Latinx, and 70% speak a language other than English at home. While underrepresented minorities (URMs) constitute 71% of the overall student population, they are particularly underrepresented and/or have underperformed in STEM. In response to the unique needs of this growing institution and to improve outcomes for URM students, UCM's Center for Engaged Teaching and Learning was asked to develop a strategic plan for gathering and using evidence about student learning to improve teaching and learning within its research-focused environment. Since its inception, the SATAL program has evolved into a valued component of the institution's assessment processes. The elements of SATAL's design are summarized in the logic model presented below.

SATAL PROGRAM LOGIC MODEL

A logic model is a tool that makes explicit the relationship between program activities and their desired outcomes to enhance the program planning, implementation, and dissemination activities (Kellogg Foundation as cited by the Association of American Colleges and Universities, 2019). It helps educators with program assessment and data-informed decision-making. Based on the work set forth by Hines (2015), the SATAL's logic model provides a comprehensive plan for the evolution of the program by identifying its vision, mission, goals, outcomes, outputs, and inputs (see Table 1).

SATAL priorities

Reflecting UCM principles of assessment, SATAL's vision, mission and goals guide programmatic decisions and set the tone for how the partnership work will be perceived, experienced, and sustained across time. SATAL aims to challenge traditional assumptions about

the roles of students and faculty play in higher education, particularly in comes to decisions regarding teaching and learning at a research institution. Foundational to the program is our use of a students-as-partners approach (see e.g., Cook-Sather, 2014) to facilitate the collection of high-quality assessment data which is used to inform instructional decisions and ultimately improve student learning experiences. The four goals targeting the learning environment, the faculty partners, the working interns, and the undergraduates guide program outcomes and outputs.

SATAL outcomes

The program outcomes identify what we envision to be the results of your students - faculty partnerships. Outcome 1 identifies our way of relating and working together, which is based on the principles of good students-as-partners practice (Cook-Sather, 2014). Outcomes 2 and 3 address the results of the joint ownership for teaching, learning, and assessment that is central to enacting this students-as-partners program. Traditional power dynamics are transformed into shared power structures by amplifying the voice of students in their educational experiences. As a result, faculty gain valuable insight into the impact of their instructional decisions and begin to consider alternative, and often non-traditional, pedagogical approaches (e.g., active learning). Interns learn about educational practices and gain skills that would otherwise be gained only by those working in research labs. Outcome 4 focuses on the climate needed for undergraduates to honestly articulate to faculty their insights about the effectiveness of the teaching methods and their overall learning experiences.

SATAL outputs

The outputs of the program define the actual activities of the partnership program. Critical to this work is a program coordinator who adheres to the SaP evidence-based practices to facilitate the partnership development and ensure that SATAL participants understand and uphold the principles of partnership. As co-creators of teaching and learning, faculty and students work side-by-side toward common goals, adopting practices that cultivate respect, reciprocity, and shared responsibility for teaching and learning. Participating in a professional development course arranged through modules, interns explore a variety of assessment activities and protocols. Important to their development is learning how to collect and analyze data, as well as report findings regardless of the discipline in which these activities are conducted. The curriculum is designed to stimulate interest in teaching and learning, build community, foster respect and personal responsibility, and develop action-research processes and gain skills that transcend a particular class, discipline, or situation.

SATAL offers faculty a menu of assessment support services, including entry/exit surveys; classroom observation protocols such as Smith, Jones, Gilbert, and Smith's (2013) Classroom Observation Protocol from Undergraduate STEM (COPUS) and Clark and Redmond's (1982) Small Group Instructional Diagnosis (SGID); focus groups and interview sessions; peer-led feedback workshops; and individual consultations regarding assessment data and its implications. Recognizing the research targets faculty must meet for tenure and promotion, SATAL represents its services as opportunities to conduct action research in the classroom. Faculty can then use assessment data collected by SATAL interns to supplement their formal

teaching appraisal documentation, highlighting areas of strength and ongoing improvement efforts.

SATAL inputs

In order to develop and sustain an effective program, SATAL requires a number of resources. Funding from UCM's the Office of Undergraduate Education supports SATAL's program coordinator, office space, and stipends for a group of diverse, cross-disciplinary undergraduate student interns. Program personnel need resources to acquire assessment tools; participate in professional development activities; conduct assessment protocols, analyze data, and summarize findings in reports; and market SATAL services on campus.

Table 1. SATAL program logic model

Program Priorities			
Vision: To engage faculty and students as co-creators of teaching and learning at a student-centered research institution.	**Mission:** Use the students-as-partners approach to facilitate the collection of high-quality assessment data that can inform and enhance teaching and student learning.		
Goals	**Outcomes**	**Outputs**	**Inputs**
1.Community of Practice Create and sustain an environment that reshapes power dynamics by promoting 'good SaP principles' (Cook-Sather et al. 2014) among all partners.	Partners identify SaP principles reciprocity, respect, and responsibility and a shift in power dynamics between students and faculty as central to the effectiveness of their partnership work.	Through professional development activities, the coordinator 1.1 Ensures partners understand and uphold principles of partnership. 1.2 Designs learning experiences and ways of working together that challenge and reshape power dynamics among faculty, staff and students. 1.3 Ensures sustainability of the partnership program (i.e., it does not end when current students' partners graduate).	Input 1: Personnel • SATAL Coordinator • Student Interns Input 2: Community Office Space Input 3: Support Materials • Learning Management System • Software Programs • IT Support • Printer and Supplies • Marketing • Professional Conference Attendance • Professional Journal Subscriptions

Table 1 cont.

Goals	Outcomes	Outputs	Inputs
2.Faculty Promote research-based assessment approaches and data-informed instructional decision-making among faculty as they work to improve teaching and learning.	2.1 Faculty report being satisfied with the assessment services provided; the majority will request services again. 2.2 Faculty make meaningful pedagogical changes based on SATAL assessment reports.	2.1 Identify and implement research-based assessment tools designed to gather reliable and valid evidence of student learning. 2.2 Provide professional development on the use of assessment tools and protocols. 2.3 Focus assessment services on the effectiveness of instructional activities with respect to identified student learning outcomes and level of student engagement. 2.4 Partners meet to review assessment findings, and implications, and plan follow-up activities.	Input 4: Assessment Tools & Protocols • COPUS • SGID • NVivo
Goals	**Outcomes**	**Outputs**	**Inputs**
3.Student Interns Involve undergraduates in experiences that support the development of the institution's General Education Hallmarks (i.e., research, cultural responsiveness, interpersonal	SATAL interns report gains in skill sets that are useful to them in and beyond the university.	As pedagogical partners, interns become full participants in the assessment of teaching and learning. 3.1. Participate in eight, two-hour professional development sessions as part of the apprenticeship model program. 3.2. Work collaboratively with faculty and peers from	Input 4: Assessment Tools & Protocols • COPUS • SGID • NVivo

skills, self-awareness, and intrapersonal skills).		diverse backgrounds, disciplines, and class standing. 3.3. Work responsibly to provide quality services, while maintaining audience awareness and confidentiality. 3.4. Work respectfully when performing in-class assessments and collaborating with others on the team. 3.5. Develop as a scholar: Collect reliable and valid qualitative and quantitative data, perform content analysis, write quality summary reports, and present findings. 3.6. Reflect on professional development experiences, work performed, and skills gained.	

DOCUMENTING THE IMPACT OF THE SATAL PROGRAM

Since 2009 the SATAL program has completed over 1,000 assessment requests, with an average of 100 requests per academic year. Classroom observations, interviews, videotaping, and focus groups are the most requested services, representing 60% of all requests. Over 100 faculty members are repeat users of the SATAL services. In the following section, we document the impact of SATAL on faculty, undergraduate SATAL interns, and undergraduate students in courses we have assessed.

Impact on faculty utilizing SATAL services

Following various assessment protocols, faculty complete a feedback survey identifying instructional modifications they have implemented. Our findings reveal a number of improvements. For example, disciplinary programs have added introductory courses and revised capstone assignments. Individual faculty members explicitly discuss learning outcomes with students, utilize more active learning strategies, consider carefully the quality and quantity

of quiz and test items, and adjust their speaking pace during instruction. When prompted about the value they derived from partnering with students, faculty explained:

> The opinions, suggestions, and answers that students give to SATAL staff during focus groups is much more open, frank, and helpful than what they say to faculty directly. SATAL creates an environment that enables students to speak freely. (Applied Mathematics Professor)

> In the past five years of directing the STEM Center, I have used SATAL services to help assess the undergraduate STEM Center Peer-Tutor/Mentor, MACES, and outreach (GirlCode) programs. These were all newly established programs and the surveys and the focus groups SATAL administered helped us assess our learning outcomes and practices. (Chemistry Professor)

Faculty also reported enhanced relationships with students and transformed ways of thinking about learning and teaching practices. Collectively, data collected provide evidence regarding Outcomes 1, 2, and 4.

Impact on undergraduate SATAL interns

Students serve as interns from one to three years, depending on their academic standing at the time of hire. Upon graduation, they complete an exit survey investigating their perceptions of skills gained. Twenty seven of the 31 graduating interns since 2009 have responded to the survey. All interns who responded considered the program to have instilled in them professional skills that will be valuable in their future careers, providing supportive evidence for Outcome 3. Many commented that the apprenticeship model was very helpful to their success, noting activities such as shadowing a more experienced intern as they administered assessment protocols, teaching novice interns to analyze data and develop reports, and leading feedback sessions for undergraduates in classes. When prompted about the value derived from partnering with faculty on classroom assessment, one SATAL intern explained:

> We benefit from taking on tasks that require us to apply a wide variety of skills. We have the opportunity to contribute to a project in any way we feel comfortable... classroom assessment encourages us to think more critically about our own learning.

Many interns noted enhanced motivation for, ownership of, and metacognitive awareness about their own learning, along with deepening their understanding of, and contributions to, the academic community. One key theme emerging from the exit survey data was that the enactment of the values of partnership of reciprocity, respect, and responsibility, as well as the shifting power dynamics as outlined by Cook-Sather (2014), made this work rewarding. Their responses provide indirect evidence of having met Outcomes 1 and 3.

Impact on undergraduate students in courses using SATAL services

SATAL interns work to ensure that solicited student feedback is both meaningful and actionable. For example, the comment, "This class is too early," does not help an instructor who seeks to improve teaching and learning. The Feedback Initiative (FI**),** a research project piloted by SATAL interns during Spring 2014, uses a rubric to teach undergraduates how to provide their instructors with actionable feedback (see Signorini, 2014). Results indicate that undergraduates benefit from direct instruction in how to give useful feedback. As a result, faculty receive feedback that can actually be used to guide instructional decisions. The following comment by a SATAL intern summarizes what many interns feel, providing evidence for Outcomes 1 and 4.

> I witnessed my peers reflect significantly on their learning experiences… [We] used the "think-pair share" method to have them discuss their responses with fellow classmates in order to reach a consensus. All responses are valuable and help shape the current and future structure of the course.

As can be seen in this case study, a carefully crafted logic model can inform the design and impact of student-faculty partnerships and provide a pathway for partners to produce visible and portable evidence of learning.

LESSONS LEARNED

The SATAL Program has evolved from a program created to build assessment capacity to one that partners undergraduates with faculty on a variety of assessment tasks to enhance teaching and learning on campus. We have learned many lessons throughout the tenure of the program that may help other institutions wishing to implement and sustain a students-as-partners program. In Table 2 we present some key insights we gained from this evolving program.

Table 2. Lessons learned

Building a Community of Practice	• As the program grows, we need adequate office space to facilitate collaboration and a sense of community. • We need sufficient time and strategies to overcome differences in experience and expertise within the teams, as well to reshape power dynamics. • We need a robust process to develop trust, especially as new faculty join the institution. • We need to allocate more time for reflection on the students-as-partners approach to provide strong evidence for Outcome 1.
Faculty and Staff Partners	• Because students-as-partners programs challenge traditional assumptions about how to produce transformative results, we need to increase awareness and understanding about student-faculty partnerships across the institution.

	• SATAL does provide faculty with valuable insights into aspects of teaching that they might not gain otherwise.
Student Interns	• We need additional personnel to scale the internship program. • We need resources to increase opportunities for students to engage in Scholarship of Teaching and Learning (SoTL) research and participate in professional conferences, and to address equity in pay. • Professional development for interns needs to be on-going and is time intensive.
Undergraduate Students	• Teaching undergraduates why it is important to provide actionable feedback on course evaluations and how to do so is central to improving teaching and learning on a campus. • Developing peer-to-peer trust when collecting students' perspectives on their learning experiences is essential.
General	• We need to revisit the logic model annually, as it consists of an evolving pedagogy which will change depending on the individual participants. • As the SATAL program grows, we will need additional personnel to ensure quality and timeliness of feedback to faculty and staff partners.

SATAL's logic model has generated evidence that when clear communication of the intended learning outcomes is grounded in the principles of respect, reciprocity, and responsibility, institutions can have a positive impact on teaching and learning. In response to today's demand for increasing learning outcomes, particularly among URM and in STEM courses, creating a sustainable student-faculty partnership approach to assessment holds much promise.

NOTE ON CONTRIBUTORS

Adriana Signorini *developed and coordinates the Students Assessing Teaching and Learning (SATAL) program at the Center for Engaged Teaching and Learning at the University of California, Merced. She facilitates the students-faculty partnerships, and her research interests focus on collaborative approaches to the assessment of teaching and learning in higher education.*

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