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Adrian Juanson

Gina M. Quan

*San Jose State University*, [gina.quan@sjsu.edu](mailto:gina.quan@sjsu.edu)

Jennifer S. Avena

*San Jose State University*

Alexandra Gendreau Chakarov

*San Jose State University*

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## **Research on a faculty support program for working with learning assistants**

Adrian Juanson and Gina M. Quan

*Department of Physics and Astronomy, San Jose State University, San Jose, CA, 95192-0106*

Jennifer S. Avena

*Department of Biological Sciences, San Jose State University, San Jose, CA 95192*

Alexandra Gendreau Chakarov

*Department of Computer Science, San Jose State University, San Jose, CA 95192*

Learning Assistant Reflection, Guidance, and Exploration (LA-RGE) is a new program at San Jose State University designed to provide support for university faculty working with learning assistants (LAs). Faculty in LA-RGE attend facilitated bi-weekly meetings throughout the semester which discuss various topics about pedagogy, LAs, and equity. In this presentation, we will discuss a research study on what kind of support is being provided by this program and how that can potentially lead to better partnerships between faculty and LAs. During one-on-one interviews, we asked faculty to discuss their personal experiences over the time they have worked with LAs, and if LA-RGE meetings have had any effect on their perspective and relationship with their LA. We then categorized the different effects and support that faculty were receiving through LA-RGE. This work will be important toward understanding how support for faculty can lead to a more productive partnership between faculty and LAs.

## I. INTRODUCTION

The learning assistant (LA) model is a well-established model for creating a better learning environment for students. Learning assistants are undergraduate students who help university instructors facilitate small group discussion within the classroom, typically in interactive and reformed classrooms [1]. By keeping students engaged, promoting productive group work, and leading students into an understanding of the content, LAs help students experience more learning gains through these transformed classes [2]. LAs also bring a unique perspective into the classroom, one that serves as a bridge between that of a student and an instructor [3]. As undergraduate students, LAs may not have experience in being an educator nor formal training in education. To help LAs become effective facilitators, LAs engage in pedagogy training concurrent with their experience in the classroom. While pedagogy trainings vary institution to institution, they typically discuss questioning strategies, metacognitive techniques, and classroom equity [4, 5].

In addition to pedagogy support for LAs, we argue that support for instructors is necessary to fully incorporate their LA into their own course. Because of this, the learning assistant program at San Jose State University has developed the Learning Assistant-Reflect, Guide and Explore program (LA-RGE). LA-RGE acts as a parallel to the LA pedagogy course at San Jose State University, where instructors can learn and share new ideas for how to better incorporate LAs within their own classroom, as well as develop strategies for partnering with LAs. In this study, we will explore the different benefits that faculty receive from LA-RGE. We present an emergent framework that describes these different benefits. This work will help us gain a better understanding of ways to improve support for faculty working with LAs.

## II. CONTEXT

San Jose State University is located in San Jose, California. The school is a Minority Serving Institution (MSI) where roughly 30% of students are first-generation college students. The Learning Assistant Program was formed in 2016, with the purpose of supporting active learning in transformed classes in the College of Science. While the program was initially located solely in the College of Science, it is now jointly supported by the College and Peer Connections, with additional support from the CSU CREATE Program. Peer Connections provides a number of peer-educator services (e.g., mentorship, course-embedded tutoring, workshops) and is housed within Student Affairs. First-semester LAs enroll in a 3-unit pedagogy course, which provides a supportive peer community for developing their teaching practice. All LAs are also expected to meet for a weekly planning meeting with their faculty partner who is the instructor of the discipline-specific course.

The LA program at San Jose State University has been ex-

periencing a period of growth. In the 2022-2023 academic year, it served courses in biology, chemistry, computer science, computer engineering, and physics. In Spring 2023, the program hired 30 LAs, supporting nearly 2,000 students in 35 course sections. To support this growth, the program developed two supports for faculty working with LAs: LA-RGE (the focus of the paper) and a summer half-day retreat. The retreat was jointly run by San Jose State University and San Francisco State University in 2022 and served 21 faculty.

### A. LA-RGE Background/History and Goals

While LA Programs have historically focused efforts on supporting LAs and students, relatively little is known about effective support for instructors with LA-supported courses. In order to support instructors using LAs in integrating active and inclusive teaching practices into their classrooms and in fostering partnerships with their LAs, in Spring 2022, the LA Program at San Jose State began to offer faculty the opportunity to engage in a faculty learning community termed the Learning Assistant-Reflect, Guide, Explore Program (LA-RGE). This initial iteration was co-facilitated by two program directors and the LA pedagogy course instructor. We found this facilitator composition a valuable asset to the development of LA-RGE meetings, and thus we continued this structure of co-facilitation by one experienced lead facilitator and the current LA pedagogy course instructor in this past academic year. All instructors and graduate teaching assistants who were actively using LAs or who had used LAs in previous semesters were invited to participate in LA-RGE. Each cohort of LA-RGE lasts one semester, and faculty can continuously participate in them over multiple semesters. Eight instructors and TAs chose to participate in Fall 2022, and nine chose to do so in Spring 2023. LA-RGE typically met every other week, for a total of eight meetings per semester, and instructors were compensated for their time.

For the past year, the objectives of LA-RGE were as follows: (1) Faculty will reflect on STEM education teaching practices, which include understanding how learning happens and refining skills to facilitate student discussion and reflection with LAs, (2) Faculty will receive guidance and information that will empower them to make informed decisions on how to modify their practices and integrate new approaches to their teaching practice, (3) Faculty will explore what their LAs are learning about pedagogy and hear from other instructors who have taught with LAs or who currently teach with LAs, (4) Faculty will identify ways to foster partnerships with LAs to leverage their knowledge as students in creating and supporting an active, inclusive classroom community.

In Fall 2022, discussion topics focused on fostering LA-instructor partnerships, formative assessment, and equitable practices to support students' sense of belonging and a welcoming classroom environment. In Spring 2023, we discussed the LA model, active learning strategies, including group work and talk moves, ways to create equitable learn-

ing environments, which included discussions around implicit bias, stereotype threat, and mindset, and ways to apply these topics to LA-instructor weekly meetings. The structure of each meeting varied depending on topic but generally included a community builder (icebreaker) followed by discussion and an activity with small groups and/or the large group; these discussions focused around a pedagogical topic, which in some instances reflected the topic discussed with LAs in the pedagogy course. This past year, we also created a space using Google Slides termed the Goals Board for faculty to intentionally create and share their goals and track progress working towards these goals related to teaching, working with LAs, and LA-RGE. Each instructor had their own slide that they could build upon and revisit at each LA-RGE meeting.

### III. METHODS

#### A. Data Collection

Since we wanted to better understand how LA-RGE was influencing instructor's views on LAs, we invited all instructors who have participated in the LA-RGE meetings or retreat to be interviewed. We interviewed three faculty members—all three participated in LA-RGE and two of the three had also attended the retreat. During these interviews, we followed a semi-structured interview format using an adapted protocol from a previous study that examined the different feedback faculty receive from learning assistants [6]. We added several questions targeting how instructors felt about LA-RGE specifically. Topics included whether participating in LA-RGE had an overall impact on the instructor's interactions with LAs, if there were any changes that occurred due to the meetings, a description of the work they do with LAs, how comfortable they are working with LAs, as well as how they receive and integrate LA feedback.

#### B. Data Analysis

Interviews were conducted through Zoom and professionally transcribed. Our analytical process began by first identifying moments where faculty described LA-RGE. We identified particularly salient moments where faculty described how LA-RGE was influencing how faculty saw LAs or their relationships with LAs. We then developed analytic memos [7] of specific benefits that were being expressed by different instructors. Writing these analytic memos helped us refine the characterizations of the different benefits that instructors were experiencing through the LA-RGE program. Initially, we noticed that faculty described pedagogical, social, and emotional benefits, which are consistent with prior research on collaborative faculty learning environments [8]. However, we also noticed that particular benefits were tied to the structure of LA-RGE and the the LA program. We then developed a preliminary framework characterizing the different ways

that faculty valued LA-RGE. Our framework includes emergent benefits-goals, recognition, and partnership. We now describe each of the dimensions of this preliminary framework and provide illustrative examples from our interview data.

## IV. ANALYSIS

### A. Goals

We defined the “goals” category as involving the creation, revision, or tracking of instructors' pedagogical goals. Within the structure of LA-RGE, goals are a recurring component. In nearly every meeting, facilitators will invite instructors to work on their goals board, either adding a new goal in relation to the day's topic, marking progress toward previous goals, or evaluating whether any goal(s) need to be revised in some way. When asked what a typical LA-RGE meeting looks like for them, Adam says:

Yeah. So during the very beginning of the semester we create our own individual goals for [LA-RGE]. But it's goals and proposed actions and if things were completed, we had a different kind of structure. We created [goals in] the beginning, and then we always start by looking back at that. I think we pretty much always have started that way, and so then we can really think of what are we trying to accomplish.

As described by Adam, instructors are given the time and space to think about what individual goals they want to achieve within the semester regarding LAs. These goals are revisited throughout the semester, and being given this time at the start of the meeting helps instructors be more intentional in thinking about what they are trying to achieve. This kind of reflection happens in both individual and collaborative settings. Adam continues to describe what it looks like for other faculty members to have a discussion about them.

So we kind of get to know other people and their goals. Yeah, so that's what [LA-RGE meetings] kind of look like. Very discussion-based, but add that we're revising goals throughout so that it is focused on doing something with it, not just getting ideas, but taking action as well.

Adam points out how instructors are not only creating goals within LA-RGE, but also revising them throughout the semester. Instructors will also discuss these goals with others in the meeting, getting different perspectives of others and their own goals. Adam also emphasizes the revision process as helpful toward “doing something with it,” not just getting ideas, suggesting that he finds the goals structure to be particularly helpful toward enacting those goals.

### B. Social

Another aspect of LA-RGE that came up in multiple interviews, is the social benefit one gets from participating in

it. We define this category as the interactions among participants that led to a sense of community, belonging, or collective engagement. Because LA-RGE meetings primarily involve small-group and whole-group discussions, instructors get the opportunity to talk to their peers about various pedagogical topics. When asked what the most useful thing about LA-RGE was, Adam says:

I think the most useful thing is being able to just talk about these ideas with other instructors. There aren't that many opportunities to really discuss different topics related to pedagogy and teaching in general, but having this common thing that we're all thinking about how to use our LAs to make better, more inclusive, more interactive classes ... But we have very different structures. Some people are in larger lecture type classes, and so we're able to do this group problem solving as a community. And so I think that builds our own sense of belonging, in that case, to this learning community.

To Adam, the most important aspect of LA-RGE is the opportunity that it presents to talk with other instructors. He points out that instructors do not have a lot of opportunities to discuss different topics in pedagogy and teaching. LA-RGE provides that opportunity and space for instructors to have those conversations, and even apply a more focused lens since the main focus of discussion is about how to better incorporate LAs into their class. We characterize this benefit as "social" because Adam characterizes the feel of their community-as a "learning community" with a "sense of belonging." In a different vein, during Cynthia's interview she characterized the social experience of LA-RGE as being relaxing, conversational, and appreciative. When asked about what emotions she feels during the meeting she says:

Relaxation. Well, I think that there are a lot of different environments that are very high stress. The classroom is ... I've got to always be on my game and on my toes. In LA-RGE I feel like I can just sit back a little bit and have a conversation and be supported and appreciated for the work I'm putting in.

Cynthia describes the LA-RGE environment as a space separate from the high stress environment that the classroom can be. During these conversations with other faculty members she feels supported and appreciated through the different interactions with faculty. While Cynthia does not explicitly describe the LA-RGE community within this quote, we categorized it as social because she links the conversations she has with others with her sense of being supported and appreciated. Fully incorporating an LA into a course can be difficult, but having support from other faculty can be helpful when working through that goal.

### C. Pedagogical

The "pedagogical" category refers to the sharing of knowledge, strategies, or ideas pertaining to classroom teaching.

Each LA-RGE meetings' objectives will usually focus on one or more pedagogical topics (e.g., talk moves, mindset, group work, microaggressions/microaffirmations). These topics often mirror what LAs are learning in their pedagogy class, and thinking about how instructors can also use those strategies. Topics brought forward by the facilitators are not the only mechanism for instructors' pedagogical learning; because of the discussion-based nature of the meetings, other participants will often share their own experiences and strategies that could inspire ideas in another instructor. In an interview question asking "how would you help a new faculty member decide whether or not to participate in LA-RGE," Barbara says:

I would just say, 'Oh my gosh, I can't describe how valuable [LA-RGE] is because you get ideas that would have never even occurred to you that...' And you might think, 'Oh, someone else has a very different context.' [Small lab class] has a very different context than a large lecture, right? But it doesn't matter. What happens is they share what they're doing and you might not do exactly what they do. Instead, just the discussion like an idea sparks that's relevant to you.

We characterize this quote as pedagogical because Barbara describes LA-RGE as a useful space where faculty members can share different practices and strategies they use in their own classrooms. Though the instructors participating in these meetings all have different classroom environments, being exposed to new ideas could be useful in inspiring how to use a strategy in the context of their own class. Continuing Adam's excerpt from earlier, when he was asked what the most useful takeaway from LA-RGE, he stated:

[LA-RGE] gives the space to focus on these particular topics, right? Because so often instructors are focused on the content of what they're teaching next, and maybe some of the delivery of it. But not, yeah, how to better incorporate LAs into that and how to better use my time with that.

As Adam describes, the pedagogical benefits from LA-RGE can help instructors look beyond classroom content, to consider the structure of the classroom and the integration of LAs. This benefit is supported by LA-RGE discussions which involve explicit thinking and talking about the different pedagogy surrounding LAs, as well as the implementation of these pedagogical ideas.

### D. Recognition

While the previous elements of our framework have been directly tied to the goals for the LA-RGE program, one unexpected benefit was recognition—the sense of feeling seen and valued by others. During Cynthia's interview the idea of recognition or appreciation came up, when asked what a typical LA-RGE meeting looks like for her:

[LA-RGE] gives us the opportunity to be, I think, appreciated for the work we're doing, but also supported

in the work we're doing.

Cynthia describes how working with LAs, and especially creating a classroom structure that fully incorporates LAs, is a lot of work. Other faculty might not understand this, but instructors that are also working towards the same goal would understand the effort required to make students' experience with LAs better. We interpret Cynthia's quote as connecting this sense of recognition that is also tied to the pedagogical and social "support" offered by LA-RGE as well. Cynthia goes on to say:

I think that there's a part about LA-RGE that recognizes that the things that your LAs are doing in your course are because of you. That doesn't necessarily translate to your students, but it's really nice to know that somebody recognizes that.

We see Cynthia's statement that "somebody recognizes that" to refer to ways that LA-RGE facilitators and participants notice and appreciate the effort she is putting in. As she suggests, this type of recognition might not translate to her students because they don't see the behind-the-scenes work it takes to fully incorporate an LA into a class.

### E. Partnership

Our final category is "partnership" which refers to the ways in which LA-RGE supports faculty in developing productive relationships with their LAs. Another important component of partnerships is the type of feedback that is being received and given between the two individuals. LA-RGE often asks instructors to reflect on their partnerships with their own LAs, and to brainstorm how to support LAs' implementation of different pedagogical topics. When asked if LA-RGE has influenced how they interact with LAs, Barbara says:

[Prior to LA-RGE] I'd ask [my LA] any question because they're partners, but I didn't understand the relationship of power and how... I guess for me, if I were in their shoes, I'd be willing to answer any question because the course is important and I understand my opinion is valuable, but I don't think I would've felt the pressure that maybe some LAs might feel being asked from a professor and a person of power.

In Barbara's quote, we see how LA-RGE helped her reflect on their relationships with LAs, in particular identifying the pressure and expectations on the LAs that can be amplified by the power differential between LAs and faculty. Barbara attributes LA-RGE to be a space where she could consider these different ideas, suggesting the meetings help instructors consider dynamics they were not considering before.

## V. SUMMARY AND DISCUSSION

Because of the positive learning gains that LA programs bring, more universities are starting to implement their own

version of the LA model [9]. As our own program has been growing to include a number of faculty who are new to working with LAs, we found it important to support them in an analogous way to LAs. In this paper, we focused on one of these supports—an ongoing faculty learning community called LA-RGE. Through our interviews, we were able to gather the different ways that faculty benefit from these meetings, as well as understanding how the program supported these benefits. From our analysis we developed a preliminary framework describing five categories of support: Goals, Social, Pedagogical, Recognition, and Partnership.

LA-RGE supports faculty by helping them be prepared for their future partnerships with LAs, and giving instructors the pedagogical tools to improve their understanding of how to incorporate an LA within their course. In addition, having the space to discuss these different topics within an ongoing community of faculty members helps support them through the potential challenges they might face when trying to fully incorporate an LA into their course.

We see this framework as helpful for future facilitators of LA-RGE and communities similar to LA-RGE by illustrating the value the instructors receive and what is most important to them. Gaining a better understanding of what aspects of LA-RGE leads to those benefits can support facilitators in designing for particular faculty learning outcomes. We also see this framework as potentially helpful for instructors who work with LAs, as it can help them understand the different dimensions of support they may look for in other faculty development programs they may participate in.

Finally, this work is also helpful for those doing research on LA program effectiveness. While much is known about the various benefits LAs bring to the classroom, less is known about how instructors' implementation of LA-supported pedagogy impacts those benefits. We argue that understanding how LA programs can support faculty in more productively working with LAs can also improve the experience of LAs and students in LA-supported classrooms. To explore this in future work, more data collection is necessary to gain a more comprehensive understanding of all the benefits that come with a program like LA-RGE. As LA-RGE continues to evolve, we plan to refine the categories of this framework. Once we have a more refined, and robust framework we would like to compare it to other faculty development programs and theoretical ideas in the future. We would also like to explore how programs like LA-RGE contribute to partnerships between faculty and LAs, as well as how those partnerships impact their classrooms as a whole.

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