



## Learning Assistant Program

### Assessment Report: Academic Year 2023-2024

*"It made me feel important, seen, and that my progress in this class really mattered. It makes me feel that CSU wants me to succeed."*

- Student survey response (LA Program, FA23)

### Program Overview

The Learning Assistant (LA) Program at Colorado State University is a partnership between TILT and faculty to implement the LA Model of peer-to-peer academic support<sup>1</sup> in foundational undergraduate courses that have been historically difficult for students (high DFWU rates). Beginning in one section of LIFE 102 in AY18-19, the LA Program has grown substantially and in AY23-24 supported **nine courses**, in the Colleges of Natural Sciences (8 courses) and Liberal Arts (1 course).

During AY23-24, the LA Program encompassed:

|                     |                     |                    |               |
|---------------------|---------------------|--------------------|---------------|
| <b>171</b>          | <b>18</b>           | <b>38</b>          | <b>7256</b>   |
| Learning Assistants | Faculty Instructors | Supported Sections | Student Seats |

This report summarizes AY23-24 findings on implementation of the LA Model and program impact.

### Program Implementation

The LA Model relies on three essential elements: pedagogy, preparation, and practice.<sup>2</sup>

#### Pedagogy

##### Learning Assistants

The LA Model specifies that Learning Assistants are trained in pedagogical content. At CSU, LAs enroll in a one-credit pedagogy course (IU 274: Learning Assistants in Higher Education) during their first semester as an LA. In AY23-24, **96 LAs completed IU 274**.

##### Instructors

In collaboration with the TILT instructional design team, the LA Program developed a Faculty Workshop Series and Best Practices in Teaching (BPiT) course on Implementing the LA Model for instructors

<sup>1</sup> Barasso, A. P., & Spiliotis, K. E. (2021). A scoping review of literature assessing the impact of the learning assistant model. *International Journal of STEM Education*. 8(12). <https://doi.org/10.1186/s40594-020-00267-8>

<sup>2</sup> Otero, V. K. (2015). Nationally scaled model for leveraging course transformation with physics teacher preparation. In C. Sandifer and E. Brewe (Eds.), *Recruiting and educating future physics teachers: Case studies and effective practices* (pp. 107-127). American Physical Society.

working with the LA Program. Of the 20 instructors working with the TILT LA Program, **nine completed the BPiT course, and 15 – 16 instructors completed each of the three workshop sessions.**

During Spring 2024, the LA Program also began sending a **recurring newsletter to faculty working with LAs** to highlight content from the LA pedagogy course (IU 274), share suggestions for content when facilitating their meetings with LAs, and other program events and opportunities to help bridge connections between pedagogical concepts and application in the context of their specific course.

## Preparation

LAs meet with the course instructor(s) at least once per week to prepare for upcoming classes. In the Spring 2024 Implementation Survey of faculty, Graduate Teaching Assistants, and Learning Assistants about how the LA Model is implemented in the courses (response rates of 92% of faculty, 100% of GTAs, and 99% of LAs), survey responses across all courses confirmed that:

- course teams consistently met for their scheduled weekly meetings.
- weekly meetings consistently involved addressing upcoming content and practicing with active learning activities.
- weekly meetings prepared LAs well to support student learning.
- information from LAs about the student experience was incorporated into the course.

## Practice

At CSU, LAs engage with students in class (lectures and recitations) and outside of class to encourage active learning and practice with course concepts.

### Lectures and Recitations

In the Spring 2024 Implementation Survey of LAs, **63%** responded that they **engage with students multiple times in every lecture**, and **64%** responded that **students collaborate with other students multiple times, every lecture**.

### Outside-of-Class Events

Students are invited to practice course content with LAs outside of class in:

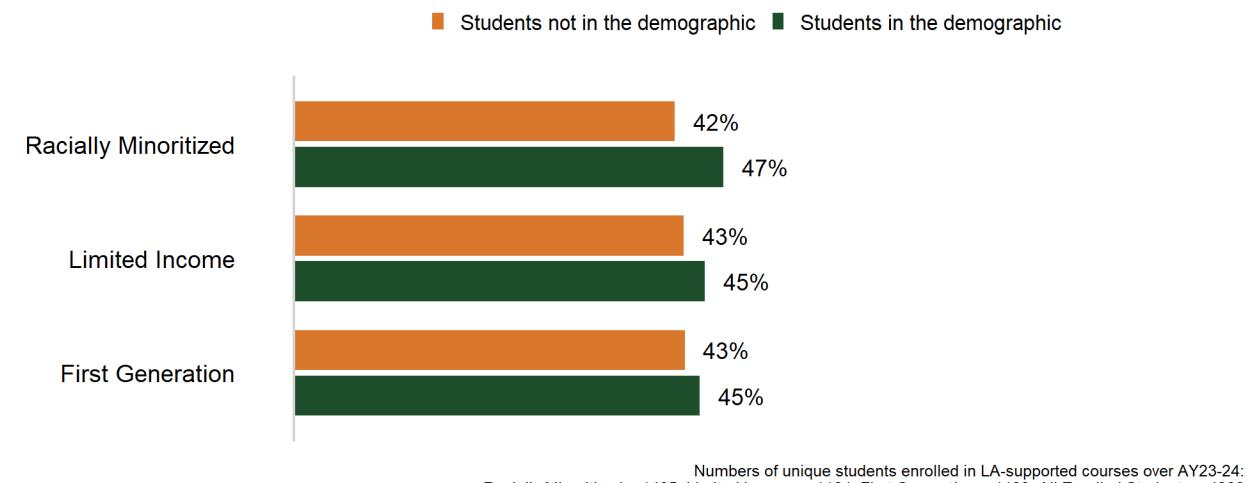
- Group Learning Sessions (drop-in tutoring support in TILT's Great Hall in the evening)
- Exam Reviews (sessions facilitated by LA teams before exams)
- Cohort Tutor Groups (students who are not yet meeting course expectations based on early performance are invited to meet twice per week with fellow students to practice with course concepts, facilitated by a Learning Assistant)
- One-on-One Tutoring (students request to meet individually with a Learning Assistant to practice with course concepts; discontinued after Fall 2023)
- Help Hours (LAs available for drop-in support during designated daytime hours)
- Office Hours (LAs available to assist students alongside faculty during their office hours)

The type of outside-of-class support provided for each course is determined by the instructors and TILT.

In AY23-24, **44%** of unique students enrolled in LA-supported courses **attended at least one TILT-facilitated outside-of-class event**, with the percent varying by course<sup>3</sup>:



Racially minoritized, limited income, and first-generation students attended outside-of-class events supported by LAs at similar or slightly higher rates than students not in these demographics:



## Program Impact

### Student Success

Because creating equitable educational outcomes and promoting student success are core priorities of the LA Program, we collect data on student success rates for all LA-supported courses and analyze differences between student groups. At the same time, we recognize the LA Model is not operating in isolation, and a variety of factors (e.g., curriculum updates, change of instructor, COVID, Fall versus Spring semesters) influence student performance. Even with the complexity of factors influencing student performance, we aim for LA-supported sections to increase student success rates and eliminate differences in success rates between student demographics.

Data through AY23-24 reflect that **student success rates have generally, but not always, been higher after LAs were introduced to the course, including for racially minoritized, first-generation, and limited income students** (Figures 1 - 5).

<sup>3</sup> Attendance data include Group Learning Sessions, Exam Reviews, Cohort Tutor Groups, One-on-One Tutoring (offered Fall 2023), and LIFE 102 Help Hours (offered Spring 2024). Attendance was not tracked at events facilitated by departments (ART 100 Help Hours, BZ 120 Help Hours, Chemistry Learning Resource Center (CLeRC), and College Algebra and Precalculus Support (CAPS) Center).

Figure 1. Student success rates in LIFE 102

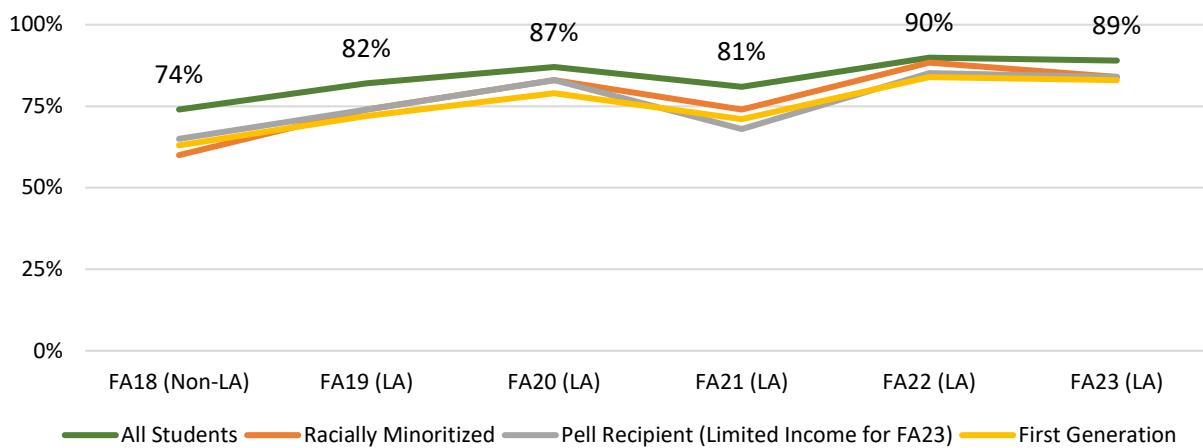


Figure 2. Student success rates for CHEM 111

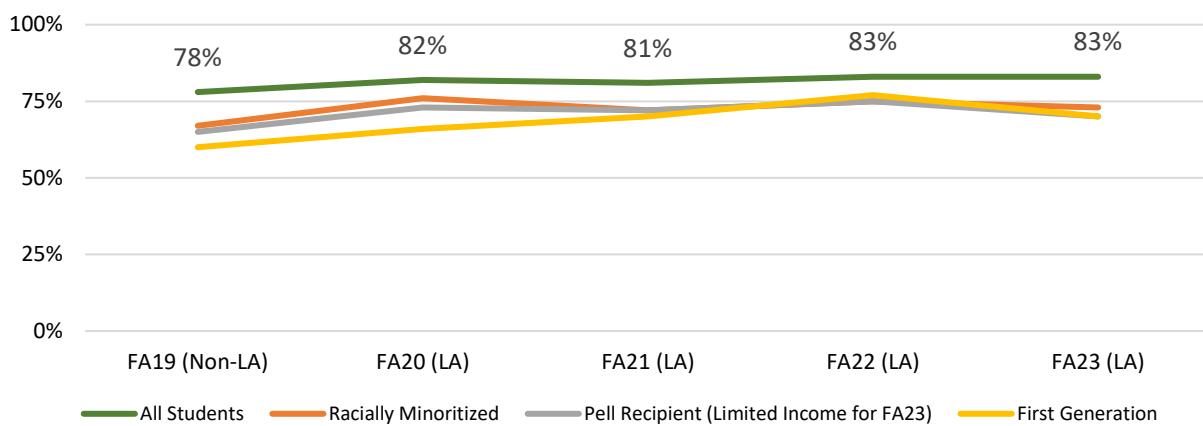


Figure 3. Student success rates in BZ 110

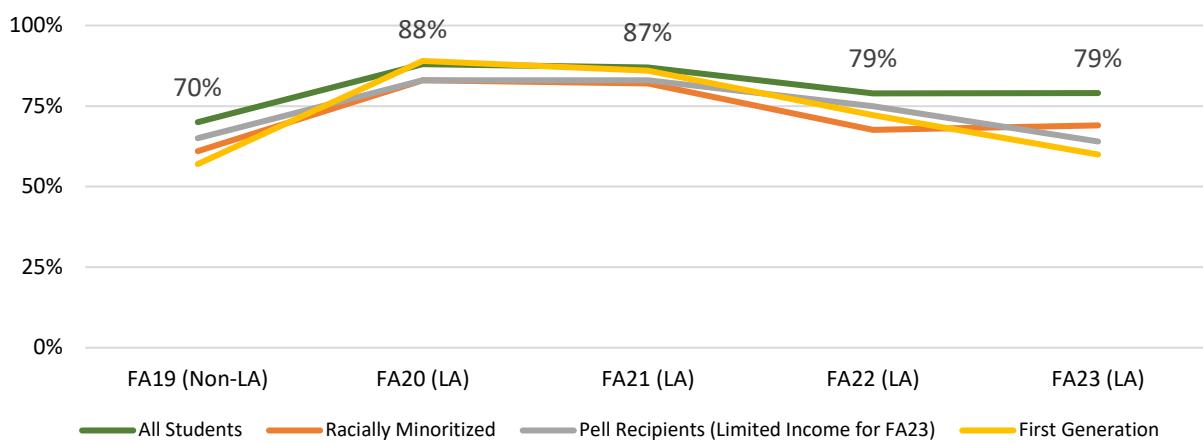


Figure 4. Student success rates in CHEM 107

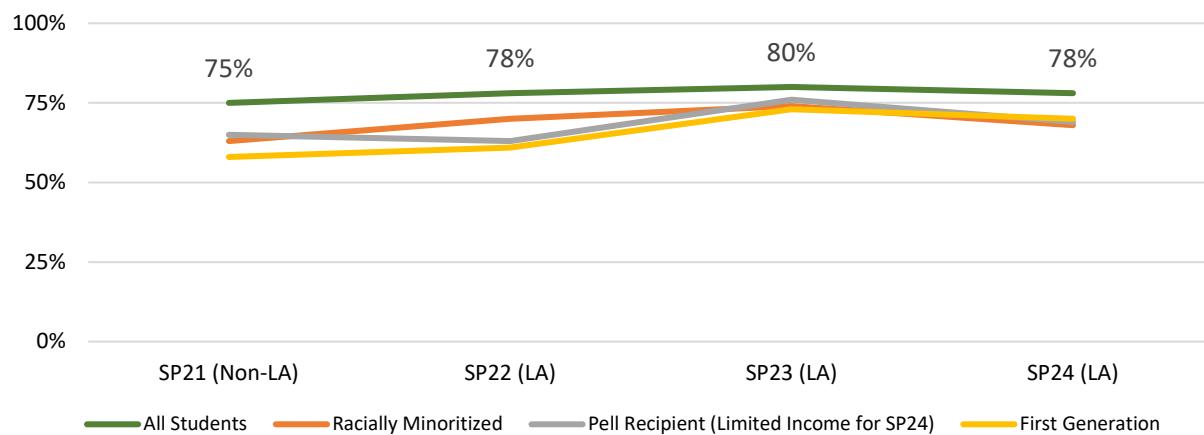
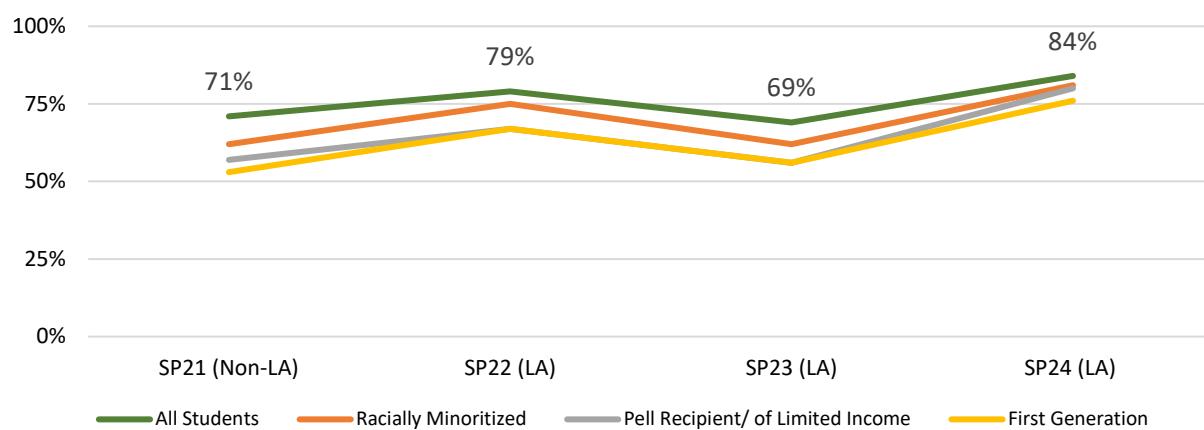
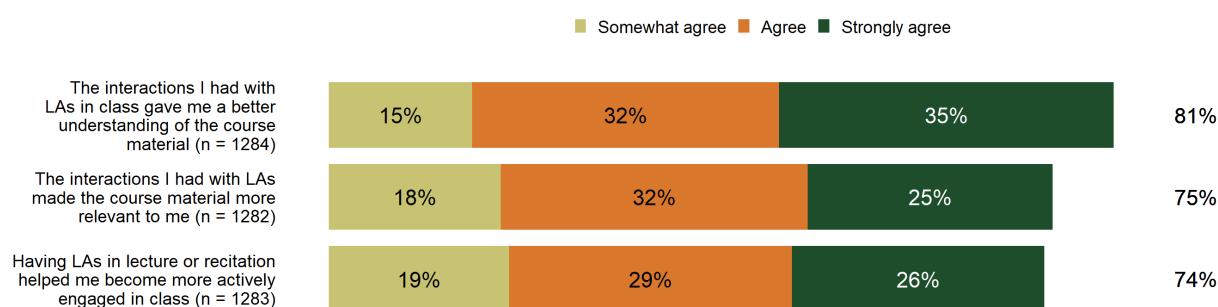


Figure 5. Student success rates in CHEM 113

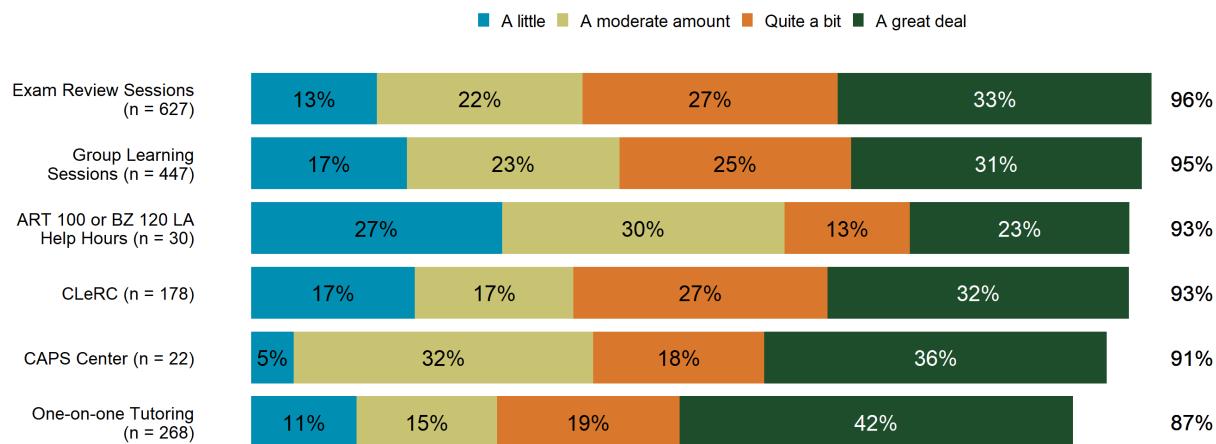


## Student Experience

Student experience is an important measure of our program's effectiveness in creating equitable learning environments at CSU. In FA23, responses to our Student Perception Survey (response rate: 25%) showed that **students agree that interactions with LAs in lectures and recitations supported their learning**. As one student wrote, "LAs help extend the reach of the teacher."



Responses also showed that students who choose to participate in outside-of-class learning opportunities find them to be helpful to their learning of course material.



Each semester, student feedback also acknowledges that attending these outside-of-class learning opportunities is not feasible for some students' schedules or circumstances. As such, we recognize the importance of centering in-class interactions between students and LAs to increase access to the benefits of the LA Model for all enrolled students.

Students are also invited to provide open-ended feedback in the survey, from which we identified several themes across courses, including:

- Students like having LAs in class because of their availability, accessibility, and responsiveness when they have questions or confusion during class.
- Students appreciate that LAs are willing to help and can provide personalized support.
- Students value that LAs are approachable and understand the student perspective.
- Students see LAs contributing to their sense of belonging by increasing students' comfort/confidence in the course, creating a positive classroom climate, validating struggles, and building connections.

Some quotes represent the themes shared in this survey:

*"It was less intimidating to ask an LA a question than to ask the professor in front of the large class. It also was nice that I could ask for their help at any point if I didn't understand. They do a lot of work and I appreciate that they are so willing to help."*

*"All of the LAs in my section were very helpful. I didn't feel nervous asking questions and I was able to figure out a lot of material in class with them. The help felt more personalized and they could explain to me how they learned it in a student-to-student way instead of a professor-to-student environment."*

*"Having LAs in this class made the transition from high school to college a whole lot better. Being able to get access to so many resources is a game changer."*

*"It makes me feel more welcome and gives me a sense of hope for remaining in my major."*

These **student perspectives highlight that one of the benefits of the LA Model is the peer-to-peer dynamic.**<sup>4</sup> One instructor shared how she has leveraged this peer influence in service of student success:

*“I have been having my LAs do small presentations to start each class. Just a few minutes, sharing some sort of useful information for the class (how to make the most of review sessions, how to approach homework, what to expect in group learning sessions, how to organize your calendar, the importance of spacing out your studies, etc). It is GREAT. The students often applaud at the end. I think they hear things differently coming from the LAs.”*

— Dr. Harmony Tucker, CHEM 107 Instructor

## Outreach beyond CSU

TILT also worked to strengthen the connection between CSU faculty and the Learning Assistant Alliance. In October 2023, the CSU Learning Assistant Program was represented at the International Learning Assistant Conference through the following contributions:

- “Transforming General Chemistry courses at Colorado State University with the Learning Assistant Model” (poster presented by Dr. Kerry MacFarland, CHEM 111 Instructor)
- “Enhancing the Learning Assistant Experience through Weekly Prep Meetings” (poster presented by Dr. Kimberly Jeckel, LIFE 102 Instructor)
- “Working with Other Peer-Instructional Programs” (workshop co-facilitated by LA Program Coordinator, Stacey Clark)
- “Leveraging the LA Model to Facilitate Inclusion and Belonging” (workshop co-facilitated by LA Program Coordinator, Jennifer Roche)

## Future Directions

In AY24-25, the LA Program will continue to support ART 100, CHEM 107, CHEM 111, CHEM 113, LIFE 102, and MATH 120. Due to changes in departmental budgets, BZ 110 and BZ 120 will not be supported.

To improve the infrastructure that TILT provides, we plan to:

- create a central onboarding course in Canvas for LAs.
- further assess the impact of the LA Model on student success and equity.
- in partnership with the Technology, Platforms, and Reporting Tools Student Success Initiative Implementation team, use EAB Navigate to track visits to Exam Review Sessions. This system should provide more accurate attendance data and contribute to campus-wide efforts to improve tracking and management of co-curricular data, allowing for timely data needed for decision-making in support of CSU’s Student Success Initiative.

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<sup>4</sup> Clements, T. P., Friedman, K. L., Johnson, H. J., Meier, C., Watkins, J., Brockman, A. J., & Brame, C. J. (2022). “It made me feel like a bigger part of the STEM community”: Incorporation of Learning Assistants enhances students’ sense of belonging in a large introductory biology course. *CBE – Life Sciences Education*. 21, 1-13.