Learning Assistants as Partners: Supporting peer-to-peer learning in community colleges

Dominic Dal Bello

Laura Ríos
Agenda

1. [Learning Assistants] Program model and benefits for students, instructors, and institutions
2. [Contexts] Institutional needs and affordances at Allan Hancock College
3. [LAs as partners] Our model to support AHC and transfer students via the LA program
4. [AMA] Ask us anything!
Agenda

1. [Learning Assistants] Program model and benefits for students, instructors, and institutions
2. [Contexts] Institutional needs and affordances at Allan Hancock College
3. [LAs as partners] Our model to support AHC and transfer students via the LA program
4. [AMA] Ask us anything!
The LA model decentralizes the learning process.
The LA Experience

Practice: Lead Learning Teams
   Facilitate discourse

Content: Weekly Prep Meeting
   - Reflect on past week
   - Prepare for next week
   - Work through materials
   - Plan strategies/questions
   - Examine student work

Pedagogy: LA Course
   - Questioning strategies
   - Promoting discussions
   - Formative assessment
   - Learning theories
   - Weekly teaching reflections
The LA’s role is not to explain!

- LAs are trained to elicit ideas and facilitate discussion
- LAs normalize the struggle of learning and help create community
- Because LAs are near-peers, questions and discussions can feel “lower stakes”
Here’s how we conceptualize the difference:

- LAs, by design, are not expected to be experts in the content (such as graduate TAs). They are being supported to become expert learners.
- LAs are not supposed to be explaining content to individual students or groups of students. Many TAs see their role as being master explainers.
- LAs are being supported to notice aspects of classroom dynamics. Often TAs do not.
Thus, LAs require specialized preparation.

- LAs, by design, are not expected to be experts in the content (such as graduate TAs). They are being supported to become expert learners.
- LAs are not supposed to be explaining content to individual students or groups of students. Many TAs see their role as being master explainers.
- LAs are being supported to notice aspects of classroom dynamics. Often TAs do not.
Benefits of LA-facilitated courses: Impact on students and LAs

Agenda

1. [Learning Assistants] Program model and benefits for students, instructors, and institutions

2. [Contexts] Institutional needs at Allan Hancock College

3. [LAs as partners] Our model to support AHC and transfer students via the LA program

4. [AMA] Ask us anything!
Allan Hancock Physics and Engineering

Mechanics Courses:
- Calc-based Physics 1 (Engineering Physics 1)
- Engineering Statics
- Engineering Dynamics

These courses map onto Cal Poly courses for transfer student matriculation.

Phys 110
- Conceptual introductory physics for students without previous formal exposure to physics
- Vectors, units, non-calculus based mechanics
Allan Hancock Physics and Engineering

Target courses

- Mechanics Courses:
  - Calc-based Physics 1 (Engineering Physics 1)
  - Engineering Statics
  - Engineering Dynamics
Allan Hancock Physics and Engineering

Target courses

- Mechanics Courses:
  - Calc-based Physics 1 (Engineering Physics 1)
  - Engineering Statics
  - Engineering Dynamics

→ these courses map onto Cal Poly courses for transfer student matriculation
Target courses

- Mechanics Courses:
  - Calc-based Physics 1 (Engineering Physics 1)
  - Engineering Statics
  - Engineering Dynamics

→these courses map onto Cal Poly courses for transfer student matriculation

- Phys 110
  - Conceptual introductory physics for students without previous formal exposure to physics
  - Vectors, units, non-calculus based mechanics
Institutional needs and affordances at AHC

Constraints and needs

- High teaching load
- No TAs, very little peer instruction (only there for a year after passing Physics 1)
- Scaling up a program would strain administrative resources
Institutional needs and affordances at AHC

Constraints and needs

- High teaching load
- No TAs, very little peer instruction (only there for a year after passing Physics 1)
- Scaling up a program would strain administrative resources

Affordances

- High teaching load! Expert and involved instructors
- Explicit programming focused on student support and community-building in STEM
- Strong institutional support for student’s transfer path to 4-year college
- Diverse community of students and instructors
1. [Learning Assistants] Program model and benefits for students, instructors, and institutions

2. [Contexts] Institutional needs at Allan Hancock College

3. [LAs as partners] Our model to support AHC and transfer students via the LA program

4. [AMA] Ask us anything!
Goal: lay framework for LA-instructor partnership

Identify courses and faculty and LAs

Courses with a shallow on-ramp to introduction of LAs in their courses

Faculty who had interest in developing their course with LAs

Former students with solid grade, work ethic and communication skills asked to serve as LAs

Essential elements: group work, discussion-based problem-solving
**Goal: lay framework for LA-instructor partnership**

<table>
<thead>
<tr>
<th>Identify courses and faculty and LAs</th>
<th>Training for AHC LAs and faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses with a shallow on-ramp to introduction of LAs in their courses</td>
<td>1-day workshop with all faculty and LAs on their partnerships</td>
</tr>
<tr>
<td>Faculty who had interest in developing their course with LAs</td>
<td>Workshopping existing course materials within the LA-partnership framework</td>
</tr>
<tr>
<td>Former students with solid grade, work ethic and communication skills asked to serve as LAs</td>
<td></td>
</tr>
<tr>
<td>Essential elements: group work, discussion-based problem-solving</td>
<td></td>
</tr>
</tbody>
</table>
Goal: lay framework for LA-instructor partnership

Identify courses and faculty and LAs

Courses with a shallow on-ramp to introduction of LAs in their courses
Faculty who had interest in developing their course with LAs
Former students with solid grade, work ethic and communication skills asked to serve as LAs
Essential elements: group work, discussion-based problem-solving

Training for AHC LAs and faculty

1-day workshop with all faculty and LAs on their partnerships
Workshopping existing course materials within the LA-partnership framework

Ongoing training for LAs, support for faculty

Center students and their community
In-person and Zoom pedagogical seminars with LAs
Dedicated coordinator to conduct ongoing virtual seminars with LAs and serve as student perspective for faculty

David Keating, Cal Poly STEM teacher credential program
Advanced transfer students remain LAs at AHC

Train small cohort at AHC in year 1

Five (5) LAs across Phys 110, Eng Phys 1, Eng Statics, and Eng Dynamics with three (3) difference instructors

Transfer students matriculated at Cal Poly return to LA for upper-level classes at AHC

AHC LAs for Engineering Dynamics would return after moving to Cal Poly

Repeat!
Support student transfer path into peer instruction as well

- 2 students (Tre and Luis) served as LAs at AHC while being students at Cal Poly
  - Luis – virtual statics and dynamics
  - Tre – statics
- 1 student (Jayden) transitioned to LA program for intro physics at Cal Poly after LA in AHC Phys 110 and Phys 161
- AHC is continuing with embedded tutoring and LA models in various STEM classes
What recent transfer students have to say:

Pathways to improving transfer process

• Being a learning assistant was a great opportunity for me because it allowed me to be a part of something bigger and to cement my understanding of material while making connections with other like-minded individuals.

• The opportunity of being a learning assistant at Allan Hancock College has made me excited for what is to come and has helped inspire me to go into teaching in the future.
Dom’s instructor perspective

Win-Win-Win

• LAs provide an extra set of hands and eyes in class to help work-groups
• LAs ask critical questions in class that beginning learners would not
• Great review and deeper learning for LAs
• LAs serve as role models for students
• Feedback loop for instructor during weekly meetings on class learning
Agenda

1. [Learning Assistants] Program model and benefits for students, instructors, and institutions
2. [Contexts] Institutional needs at Allan Hancock College
3. [LAs as partners] Our model to support AHC and transfer students via the LA program
4. [AMA] Ask us anything!