Integrating Efforts to Support Instructional Innovation
Academic Futures Learning Assistant White Paper

Submitted by faculty and chairs from:

CU Boulder:

Program Effectiveness: Systematic research has shown dramatic increases in student achievement in LA-supported courses in multiple departments (Pollock, 2009; Otero, 2015) and decreased failure rates in STEM gateway courses, particularly among students from groups that are traditionally underrepresented in college and in STEM (Alzen, Langdon, Otero, in press; Van Dusen & Nissen, in press). Research at other institutions has also demonstrated that the LA program develops students' identities as scientists and improves learning outcomes for faculty as they learn to use LAs (Close, Conn, Close, 2016; Close, in press). The LA program has been so successful that an *International Learning Assistant Alliance* was established in 2010 and now has 900+ faculty members from 250 institutions from the U.S., Singapore, Japan, Ireland, Brazil, and India. Universities continue to send their faculty members to CU Boulder each year for an annual International LA Conference for starting LA programs, scaling and sustaining LA programs, general professional development for faculty, advanced discussions about LA use, and training in educational research and evaluation. There is also an LA Alliance Leadership Council, which oversees five Regional Workshops annually to serve colleges in regions throughout the nation.

II. CHALLENGES

Challenge 1 - LA program growth: Feedback from faculty and students alike shows that the LA Program at CU Boulder is immensely popular, and faculty requests for LAs are continually increasing. In AY18, there were 100 faculty course proposals for 110 courses to use 418 LAs, and 893 students applied for those positions. Ultimately, a total of 99 courses were awarded 390 LAs. The combined enrollments of courses that were awarded LAs for AY18 is 25,243 and the cost of the program was approximately $38.00 per impacted student (accounting for duplicated head counts). As the program becomes increasingly popular, new departments and courses apply each term, which increases programmatic needs for general oversight for support and oversight of faculty members' effective use of LAs, especially as they innovate. Thus, official university policies are needed to support decisions to reject faculty course proposals for courses that are deemed not "LA Ready" but also to support these same faculty members who have expressed interest in making changes to better prepare them to use LA resources in the future. On the other extreme, policies and physical structures are needed for identifying, rewarding, and publicizing excellent uses of LAs (as determined by multiple measures). These courses can serve as models for faculty who would like to improve their teaching and instructional outcomes. Such courses, if taught in collaboration-enabling spaces, can also be used to highlight CU Boulder for donors and prospective students (see Section IV).

Challenge 2 - Centralization and integration: For historical reasons**,** the LA Program is currently housed in the School of Education. However, the program has outgrown the School of Education in size, scope, and philosophy. Furthermore, because it mainly serves faculty and students from the College of Arts and Sciences and in the College of Engineering and Applied

Sciences (as well as CU Teach students and likely other colleges and schools in the future), its identity and physical presence should reflect this.

Challenge 3 - Learning spaces do not support collaborative course designs. We have few learning spaces on campus that facilitate the use of collaboration models of learning supported by educational research. Lecture halls typically lack adequate space for instructors to circulate, and for students to work on in-class exercises/problem-solving in small groups. While new learning spaces are needed, small policy changes (such as lecture hall enrollment caps) can result in better support for faculty to use innovative teaching methods in currently available learning spaces.

Challenge 4 - Recruitment and retention of students from groups that are traditionally underrepresented at CU Boulder. Although CU Boulder is making strides in improving diverse representation of students, it is far from representative of the greater Colorado population. The LA program can be used as a mechanism for collaborations with community colleges and ultimately with K-12 schools to improve diversity of students enrolling and graduating from CU Boulder (see Section III, Policy H). Research has shown that the LA program increases retention in gateway courses, especially for students from groups traditionally underrepresented in STEM. (Alzen, Langdon, Otero, in press; Van Dusen & Nissen, in press).

Challenge 5 - Recruit more LAs to CU Teach. As the need for K-12 STEM teachers increases, the number of students enrolling in teacher certification programs nation-wide is waning. The LA program has demonstrated success in meeting this need by recruiting K-12 teachers: approximately 12% of LAs are recruited to careers in teaching (Otero, 2015). New programs and opportunities can further improve the recruitment of STEM students to teaching careers.

III. POLICY/PROGRAM-BASED SOLUTIONS

In order to create and enact needed policies, the LA program should be moved to a centralized location physically and philosophically. Its administrative team should work closely with Academic Affairs so that policies can be instituted and monitored.

Policy A: Develop clear standards, approved by the University, for awarding LAs to courses. As increasing numbers of faculty course proposals for LAs are submitted each semester, the university needs policies defining what constitutes an "LA-ready course," which courses are borderline and should be tested, and which are simply not LA-ready and need further support before being awarded LAs. The LA directors at CU Boulder have established a set of criteria based on input from *Departmental Coordinators* and other faculty, but it should be refined and sanctioned by the university. For example, LAs must frequently interact with groups of students, there must be a given LA to student ratio (depending on context), and faculty must meet with LAs at least once per week.

Policy B: Establish an Opt-in Course Development Collaborative. Faculty who anticipate applying for LAs in a future semester, or faculty who submit proposals for LAs for courses that are deemed not LA-ready can opt to participate in a semester-long, *course development collaborative*, which will increase their chances for receiving LAs in the upcoming semester and enhance course designs. This Collaborative will draw on existing programs and structures, while incrementally including new structures. It will include graduate students and postdoctoral scholars and can therefore also prepare future faculty, serve as credit toward a graduate certificate in educational research, and supplement grant-related mentoring plans for postdoctoral scholars. The course development collaborative could consist of the following core activities:

1. Real-time, guided observations of high quality *collaboration-enabled classes* (Section IV) and observation protocols (Formative Assessment white paper).
2. Targeted discussions with other faculty with diverse levels of expertise using LAs, engaging in instructional innovation and inclusive pedagogy
3. Assessment guidance for measuring learning outcomes and evaluating courses
4. Support for writing faculty course proposals for LAs and other grants to support instructional innovation and course evaluation/research
5. Work with an LA Mentor (see Policy G)

The types of efforts listed above are already partially supported by existing campus entities such as the FTEP, ODECE, GTP, CSL, ASSETT, and Infrastructure and Safety. The LA program can catalyze targeted, collaborative efforts among these campus entities to support instructional innovation using LAs. Integrating efforts to improve teaching highlights effective programs, capitalizes on excellence, and minimizes redundancies. Investment returns will be manifest in improved learning and retention, and the building of institutional knowledge. This effort could integrate nicely with ideas in white paper: *A New Model Course Delivery*.

Policy C: Expand the definition of teaching activity to include professional development. The faculty member's teaching load can be expanded to include professional development activities. Historically, we consider a teaching load to include *n* courses or buyouts according to the norms and practices of the particular department. Course equivalences or similar incentives should be granted to faculty for their involvement in professional development activities such as the Course Development Collaborative (see also, the white paper, *Rethinking the Outdated Binary of Teaching and Service*.) Financially, this could look like a course release or a half a course release, but philosophically it constitutes a teaching activity. If, in fact, this professional development helps the faculty member increase learning outcomes and course retention (and this will be measured), and leads to more efficient use of classroom space and LAs, it is worth the small funds it requires, and it has lasting impact on the departmental and university norms, practices, and outcomes for student learning, retention, and well-being. This policy could provide supplemental funding to departments that choose to support their faculty with this option.

Policy D: Establish a mechanism for "certifying" courses that qualify as *student collaboration-enabled course designs* and reward certified courses with accommodating teaching spaces. In the short term, large-enrollment course designs that are certified as collaboration-enabled could be allowed to *cap their enrollment at 70% of lecture hall capacity* so that every third row (for example) can be left open to allow LAs, TAs, and instructors to move freely and reach more students. In the longer term, certified collaboration-enabled course designs could be first on the list for using our newly developed, transparent, *collaboration- enabled learning spaces*. These spaces, which will be key in faculty development and in efforts to attract students and donors, will have at least one windowed side (see rough diagram in Section IV). Observation bays with windows into the classrooms will allow visitors and faculty to view certified courses and discuss instructor moves, student moves, and LA behavior while they are happening (see Section IV). As a part of a broader effort, financial rewards for to faculty and departments for learning and retention can be associated with this policy (see white paper: *Rethinking Departmental Reward Structures*).

Policy E: Integrate Technology: The Learning Assistant program has developed *LA Central Pro* (2017), a robust suite of tools to support faculty, departmental coordinators, institutional coordinators, and students (see Appendix B for selected screenshots). Administrators are also supported by LA Central Pro, especially for quick access to longitudinal data, stories, graphs, and videos. The development team has worked with the Office of Information Technology (OIT) on penetration testing and back-end design. With appropriate communication between the LA program, OIT, and CU Boulder administration, in the long term these tools could be better integrated into CU Boulder's operations so that a collaboration-enabled course or LA-supported courses could be highlighted for students during enrolment, thereby driving the market for improved instruction and improved student outcomes. The development team has also built the *Learning About STEM Student Outcomes* (LASSO, 2017) assessment system, which is integrated with *LA Central.* LASSO provides easy-to-use, automated administration of published, validated, pre/post assessments and attitudinal instruments that have been vetted by a community and have normative, comparative data. The system returns graphical reports of learning outcomes and attitudinal shifts, allowing for course comparisons (see appendix C). In the academic future, these easily accessible learning outcomes could be used for multiple purposes, such as course research and development, course advertisements, and course evaluation.

Policy F: Establish a mechanism for receiving revenue from Universities subscribing to our technological services. Approximately 250 institutions of higher education have faculty members who subscribe to the International Learning Assistant Alliance. Many of these institutions are interested in using the *LA Central Pro* software, which was developed and is used at CU Boulder. The LA program at CU Boulder has developed a multi-institution version of the software plus service that can be made available to other institutions for a fee. Related is the popular *LASSO* system, which like *LA Central* has free components, but full functionality

requires an annual subscription. Policies must be in place to accept revenue from other institutions for this software and services. Revenue generated through technology subscriptions, memberships, conferences, and grants submitted on behalf of the LA Alliance will support LA Alliance personnel on the CU Boulder campus and maintain the CU Boulder brand.

Policy G: Scale the LA Mentor program to provide on-site support for faculty and LAs
The *LA Mentoring Program* was launched in Spring 2017 in an effort to better support LAs, faculty, and students. Experienced LAs (undergraduates who have previously gone through the LA Program) serve as *LA Mentors* for first-time LAs and they also assist faculty new to using LAs. Mentors observe settings in which LAs are used and consult with their mentee and faculty member throughout the semester. They also take a special course on mentoring and leadership. As the program grows, faculty new to using LAs can be required to receive a mentor for their LAs, and these mentors could serve as liaisons between courses and LA directors. With resources, this program can be expanded to reach more students and faculty to impact the quality and personalization of education at CU Boulder. Furthermore, the mentoring experience and the LA experience can serve as new credit-bearing experiences that comprising leadership and innovation education that are hallmarks of the CU Boulder academic future (see the white paper: *Future-casting CU Boulder as the First Public University that Hacks the Academic Model*).

Policy H: Structures to increase diversity through collaborations with feeder schools

The LA program has been involved in a collaboration with Front Range Community College (FRCC, Boulder County Campus) to establish mechanisms for encouraging FRCC students to attend CU Boulder. FRCC is using LAs in their math, physics, chemistry, and biology courses, and these FRCC LAs participate in an online section of the LA Pedagogy course with CU Boulder students. If FRCC LAs are accepted to CU Boulder for degree completion, they are awarded LA positions and can thus participate as *experienced* LAs when they arrive. While we haven't yet established a mechanism for dual credit or transfer credit for the online pedagogy course, this method has helped FRCC students establish: (a) a community at CU Boulder in which they are already have status, (b) a view of CU Boulder students and themselves as equal collaborators, and (c) identification with CU Boulder, leading to application and enrollment. There are many community colleges throughout Colorado that have expressed interest, but the LA program does not yet have the capacity to scale this effort. With structures to support these types of efforts, the program can be scaled, and data can be collected to support claims about the effect of this program on increasing diversity on campus. This would pair nicely with the white paper: *Creating Pathways for Two-Year College Transfer.*

IV. SPACE RELATED SOLUTIONS

Build flexible learning spaces to enable faculty, pique the interest of donors, and recruit and support students. On behalf of departments and faculty who want to innovate and improve student learning, the LA program strongly advocates for design and construction of flexible,

student-centered learning spaces on campus. ***Collaboration-enabled learning spaces*** allow for implementing state of the art models of instruction, including observation bays for faculty, graduate, and undergraduate pedagogical development. As shown in the rough plan below, observation bays will allow faculty and students to view certified courses and discuss instructor moves, student moves, and LA behavior while it is happening, and to consult with the instructor of the course at the end of the course session. These transparent, collaboration-enabled spaces could also serve as excellent places to entertain potential donors, alumni, corporate partners and other stakeholders of interest. These spaces could be used during prospective student days to attract parents and students, who are often looking for universities that can provide personalized attention. By observing state-of-the-art instruction within these spaces, prospective students and their parents can imagine themselves or their child as successful in the CU Boulder setting--a vibrant community providing personalized attention, peer interaction, and access to faculty in a rigorous and challenging learning environment. Flexible learning bays will allow for different course designs, for example for departments to facilitate smaller student-centered recitations, review sessions LA office hours, often needed to maximize efficient use of LAs. Quiet study spaces in close proximity, allow students and LAs to transition for varied goals and tasks (also see Learning Spaces report, 2016) and the white paper *Future of Large Lecture Spaces*.

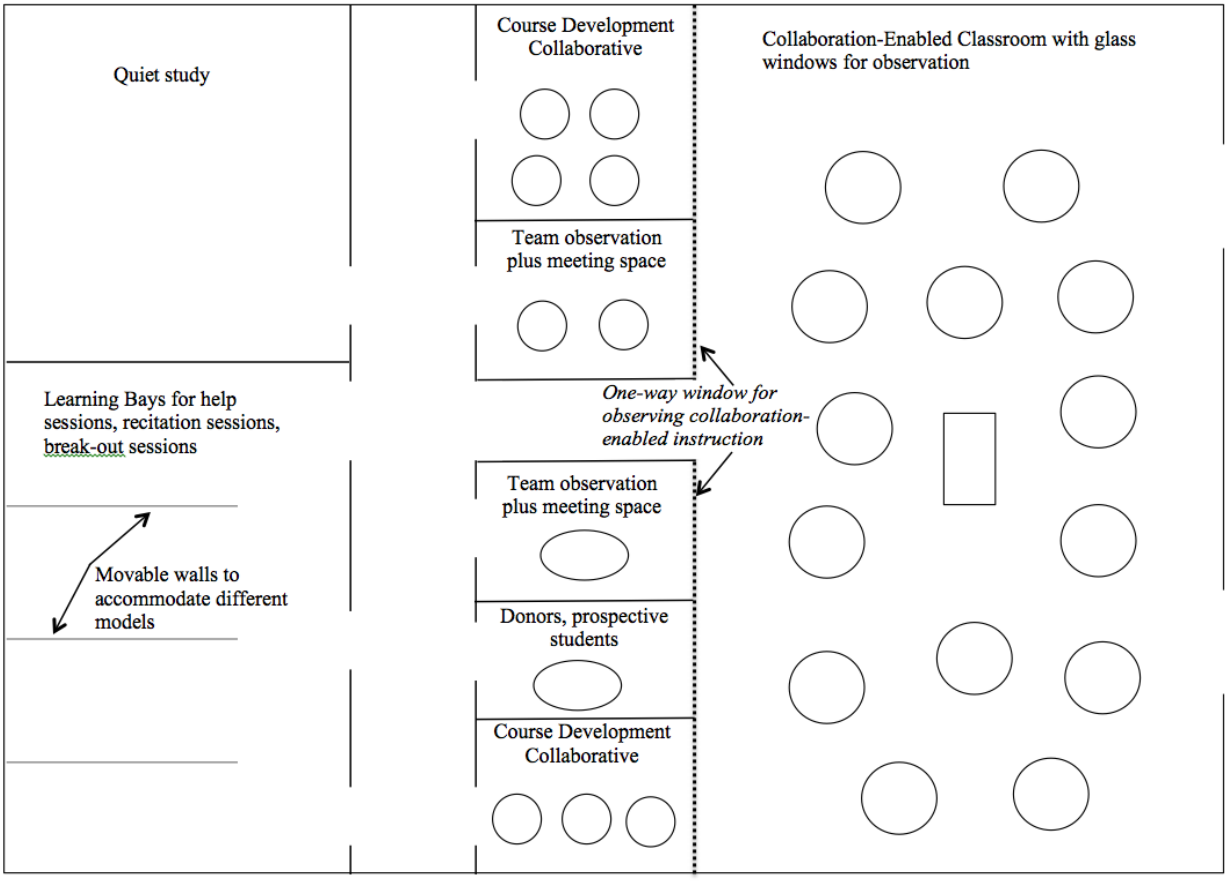


Figure 2. Collaboration enabled classroom. Right wall is window, allowing observers to discuss and observe in real time.

References

Alzen, J.**,** Langdon, L., & Otero, V. (in press). The Learning Assistant Model and DWF rates in introductory physics, accepted to L. Ding, A. Traxler, and Y. Cao (Eds.), *2017 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Close, E. W., Mailloux-Huberdeau, J.-M., Close, H. G., & Donnelly, D. (in press). Characterization of time scale for detecting impacts of reforms in an undergraduate physics program, accepted to L. Ding, A. Traxler, and Y. Cao (Eds.), *2017 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Close, E. W., Conn, J., & Close, H. G. (2016). Becoming Physics People: Development of Integrated Physics Identity through the Learning Assistant Experience. Physical Review PER, 12(1), 010109. DOI: http://dx.doi.org/10.1103/PhysRevPhysEducRes.12.010109

Learning About STEM Student Outcomes Report (LASSO, 2017) Annual report for Advisory Board for for National Science Foundation grant from the Institutional and Community Transformation track of Improving Undergraduate STEM Education grant. Report found at: https://docs.google.com/document/d/1C4ziI60QI4ggFu9GPYFJjTv0W3L7pyhM2Hd1bI6MKDI/edit?usp=sharing

Learning Space Report (2016): https://www.dropbox.com/s/0dxqikxgmd3yp04/LearningSpacesScholarSubcommitteeReport.pdf?dl=0

Otero, V. (2015). Nationally scaled model for leveraging course transformation with physics teacher preparation, To be published in Effective Practices in Preservice Physics Teacher Education: Recruitment, Retention, and Preparation, edited by E. Brewe and C. Sandifer.

Pollock, S. (2009). Longitudinal study of student conceptual understanding in electricity and magnetism, PhysRev: Phys Ed. Rsrch **5**, 020110, 1-8.

Van Dusen, B. and Nissen, J. (in press) Systemic Inequities in Introductory Physics Courses: the Impacts of Learning Assistants, Accepted to L. Ding, A. Traxler, and Y. Cao (Eds.), *2017 Physics Education Research Conference Proceedings,* AIP Press:Melville, NY.

Other White Papers Referenced

Enhancing Students' Experience in On-Campus Jobs--Improved Career-Readiness for Post-Graduation Employment, by Ann Herrmann. https://www.colorado.edu/academicfutures/sites/default/files/attached-files/herrmann.pdf

A New Model Course Delivery, by Jerry Rudy: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/rudy.pdf,

Rethinking the Outdated Binary of Teaching and Service to Unleash Innovation and Support Student Success by Boulder Faculty Assembly, Instructor Track Faculty Affairs Committee: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/norgaard_et_al.pdf

Rethinking Departmental Rewards: A proposal to encourage departments to take the lead in improving undergraduate retention, time to degree, and educational outcomes, by Mike Klymkowsky:https://www.colorado.edu/academicfutures/sites/default/files/attached-files/klymkowsky.pdf

Creating Pathways for Two-Year Community College Transfer, by Yowell, Miller, Finkesltein: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/yowell_et_al.pdf

Future-casting CU Boulder as the First Public University that Hacks the Academic Model, by Sarabeth Berk, Ali LeBeau Greenstein, Nicholas Karas, and Allison Moran: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/berk_et_al.pdf

Future of Large Lecture Spaces, by Courtney Fell, Tarah Dykeman, and Amanda McAndrew: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/fell_et_al.pdf

Formative Assessment through Protocol-Based Observations by Martin et. al.: https://www.colorado.edu/academicfutures/sites/default/files/attached-files/martin_et_al_0.pdf

Appendix A

LA Program Description

The LA experience consists of three main components: LAs (a) lead learning teams consisting of 3 to 20 students (depending on the particular department's instantiation of the model) where students work in small groups on substantive problems, (b) meet weekly with the lead faculty member of the course to plan for the upcoming week, reflect on the previous week, and analyze assessment data, and (c) attend a pedagogy course once per week. This pedagogy course introduces LAs to practical techniques as well as to the learning theory that underlies these techniques. Each department has a Departmental Coordinator (DC) who serves as a liaison between the Institutional Coordinator and their respective departments (see figure 1). Each DC has greater access permissions on the LA Central technological system so that they can monitor faculty course proposals before they are submitted to the Institutional Coordinator, and provide guidance and support to their departmental faculty. The group of DCs meets at least three times per year to review faculty course proposals, discuss strategies for engaging and educating faculty, and maintaining a thriving program on campus.

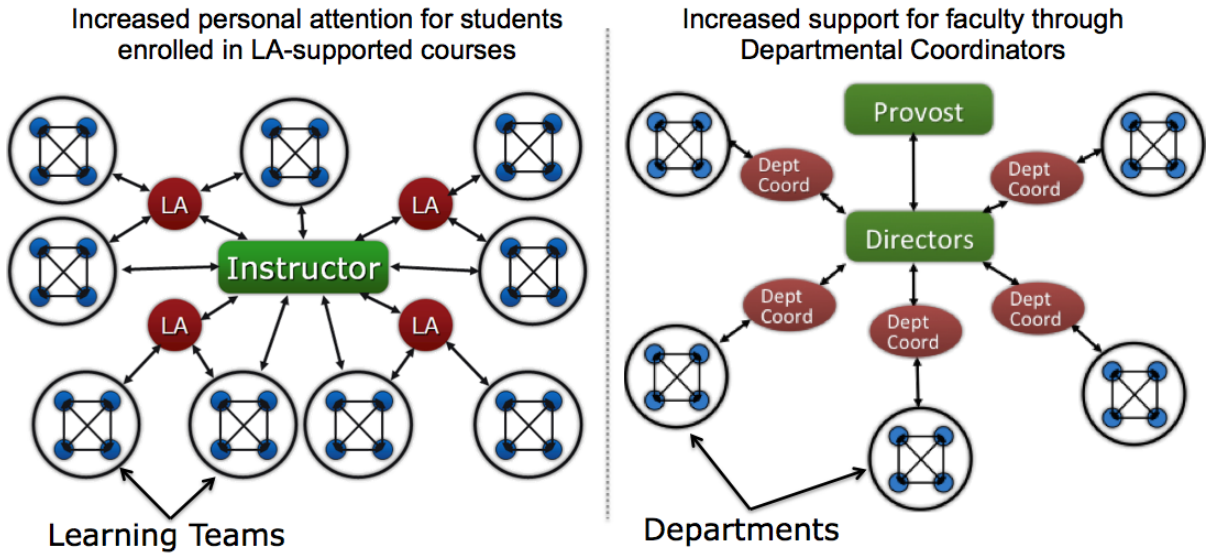
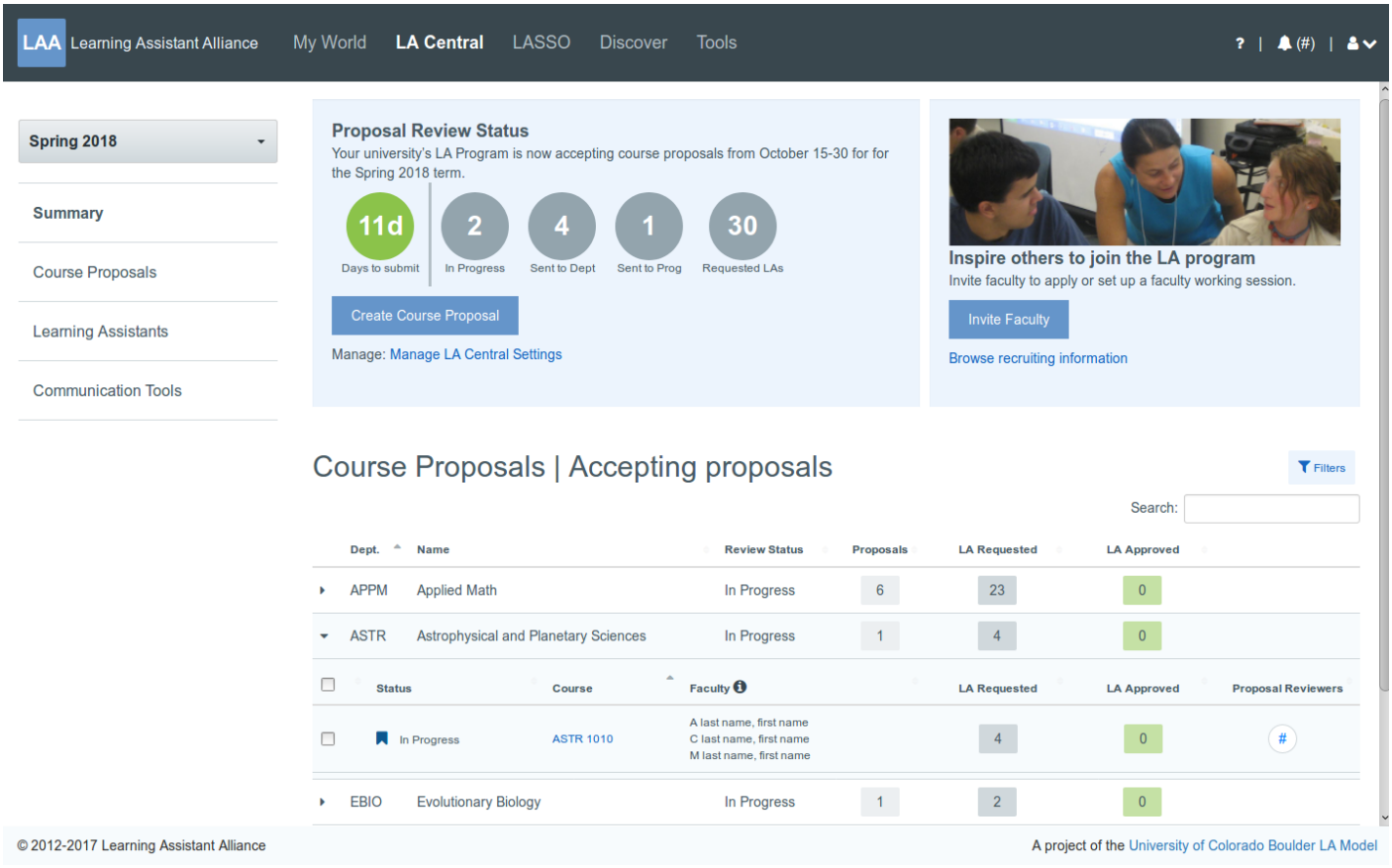
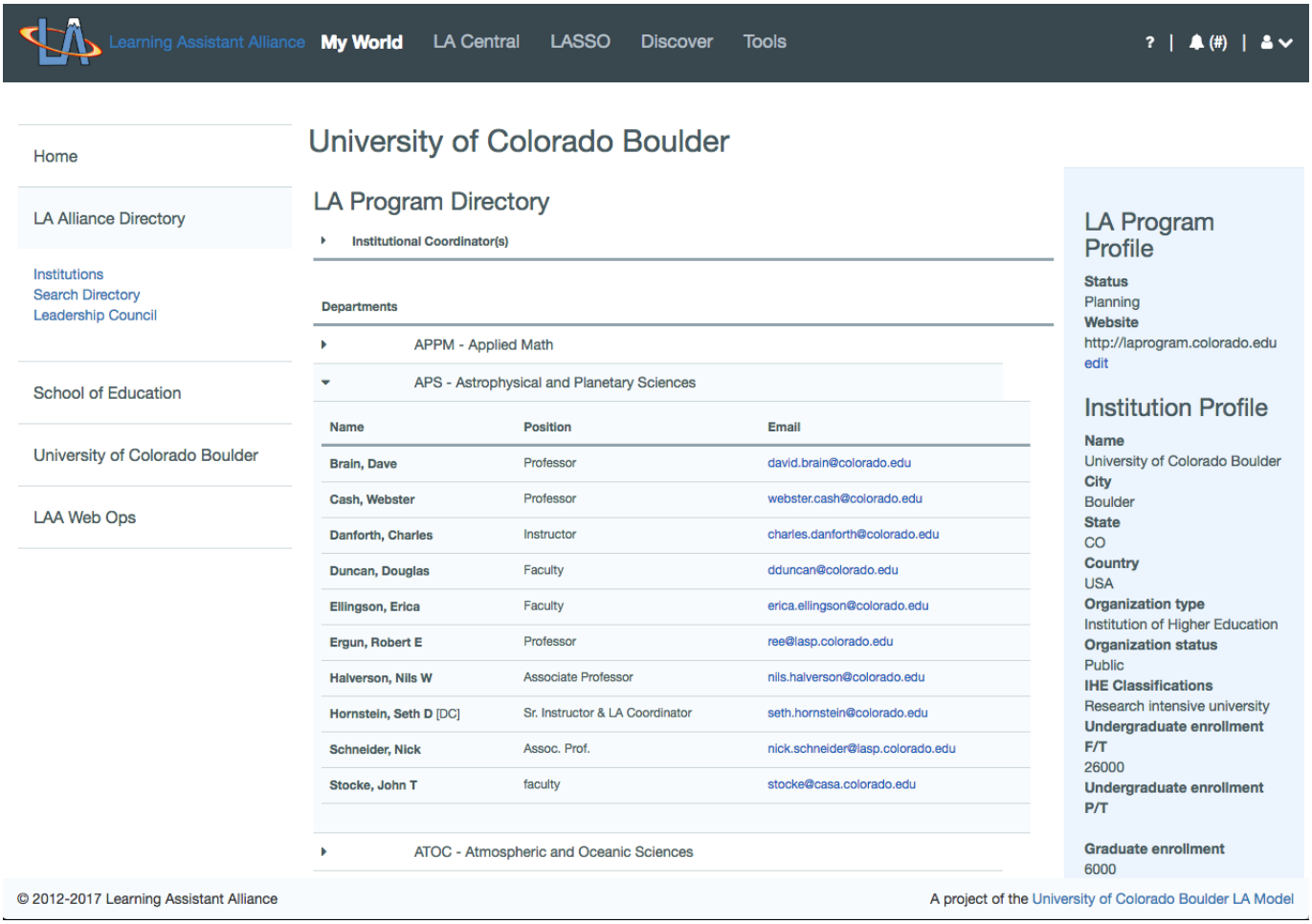


Figure 1. The LA model and the similarly conceived model for Departmental Coordinators.

APPENDIX B: LA Central Pro Screenshots



LA Central Pro from the LA Director's view. Here, multiple departments have applied for LAs in Spring 2018. Astronomy is expanded, showing that only one Astronomy course has applied during this time.



LA Central lite is available for both LA Central Pro subscribers and nonsubscribers. It provides directories for each university that has LAA users.

APPENDIX C: Learning About STEM Student Outcomes (LASSO) Report

Downloadable Learning Gain Report

LASSO REPORT

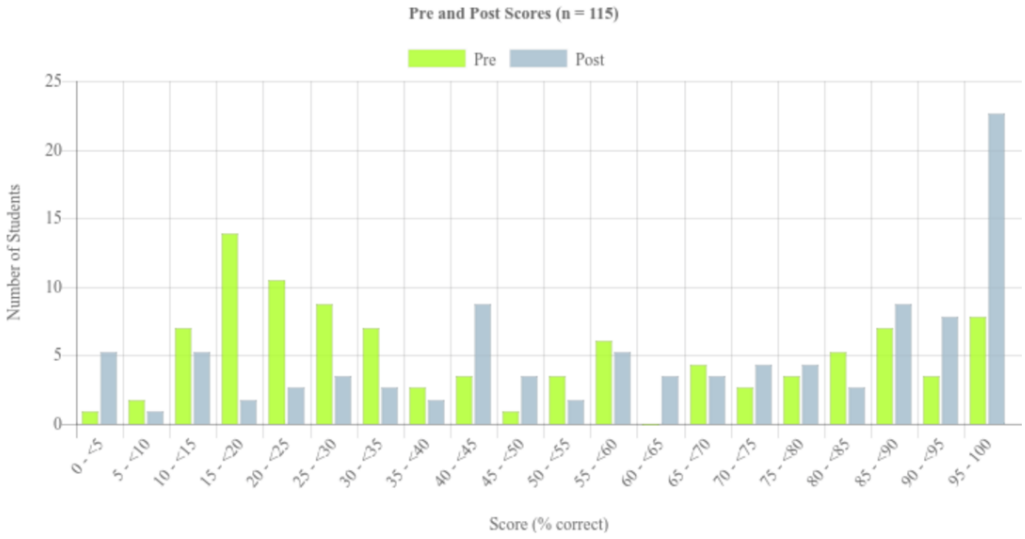
Learning Assistant Alliance

A project of the University of Colorado-Boulder LA Model

contact@learningassistantalliance.org learningassistantalliance.org

LA Supported Student Outcomes (LASSO) Study

Assessment:	FMCE	N (course) = 181		Effect Size (d) = 0.52	
Institution:	Example University	N (pre) = 172	(mean = 45%)	Learning Gain:	
Course:	PHYS 1000 001	N (post) = 124	(mean = 63%)	$\frac{\%post - \%pre}{100\% - \%pre}$	= 0.33
Instructor:	firstName lastName	N (matched) = 115			
Semester:	Fall 2015				



Effect size (Cohen's d) is a common statistical measure of student improvement. It measures student improvement in units of standard deviations $\frac{\%post - \%pre}{SD_{pooled}}$.

Data for the analysis was cleaned by removing student tests that took under 300s and/or answered less than 80% of the questions.

Downloadable Attitudes Survey Report

LASSO REPORT

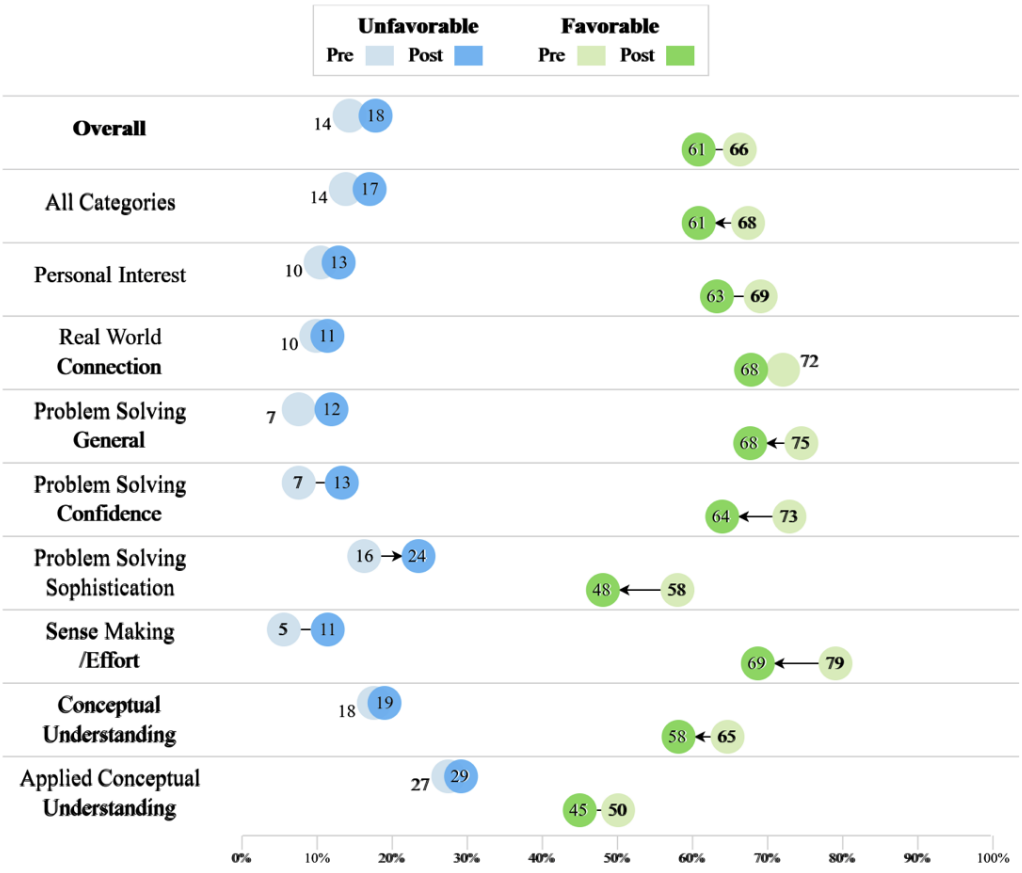
Learning Assistant Alliance

A project of the University of Colorado-Boulder LA Model

contact@learningassistantalliance.org learningassistantalliance.org

LA Supported Student Outcomes (LASSO) Study

Assessment:	CLASS-PHYS	N (course) = 129
Institution:	Example University	N (pre) = 118
Course:	PHYS 1000 001	N (post) = 115
Instructor:	firstName lastName	N (matched) = 111
Semester:	Fall 2015	



Data for the analysis was cleaned by removing student tests that took under 300s, answered less than 80% of the questions, and/or did not correctly answer the filter question (Q-31).

Submitted by CU Boulder Faculty with Front Range Community College (FRCC) Collaborators: *(as of 01/12/18)*

Name	Department	Title
Otero, Valerie	EDUC	Professor, Executive Director LA Program, Co-Director Center for STEM Learning
Langdon, Laurie	LA Program	Director, LA Program
Tutmaher, Rachel	APPM	Lecturer, Help Room Coordinator
Burns, Jack	APS	Professor
Danforth, Charles	APS	Research Scientist/Instructor
Duncan, Doug	APS	Senior Instructor
Cash, Webster	APS	Professor
Hornstein, Seth	APS	Senior Instructor
Schneider, Nick	APS	Professor
Moriyama, Jacie	ASSETT	Teaching and Learning Consultant/Student Learning Projects Director
Werner, Mark	ASSETT	Associate Director for Academic Technology
Kay, Jen	ATOC/CIRES	Assistant Professor
Lundquist, Julie	ATOC	Associate Professor
Nigro, Melissa	ATOC	Instructor
Toohey, Darin	ATOC	Professor
Bird, Greg	ATOC	Lecturer
Hendrickson, Susan	CHEM & BIOCHEM	Senior Instructor
Hoenigman, Rhonda	CSCI	Faculty Director of Undergraduate Education
Davis, Kendi	EBIO	Associate Professor
Corwin, Lisa	EBIO	Assistant Professor
Martin, Andy	EBIO	Professor, ASSETT Faculty Advisor
Smith, Stacey	EBIO	Assistant Professor
Lopez, Enrique	EDUC	Assistant Professor, LA Pedagogy Course Instructor
Garity, Jane	ENGL	Associate Professor Associate Chair for Undergraduate Studies
Klages, Mary	ENGL	Associate Professor
Nugent, Theresa	ENGL	Instructor
Soltys, Mike	ENGR	Instructor
Hinckley, Eve-Lyn	ENVS	Assistant Professor
Wessman, Carol	ENVS/EBIO/CIRES	Professor

Shea, Mary Ann	FTEP	Director
Budd, David	GEOL	Professor
Yonemoto, Marcia	GTP	Professor, History
Grulke, Elizabeth (Boo)	MATH	Lecturer
Liu, Faan Tone	MATH	Instructor
Packer, Judith	MATH	Professor
Stade, Eric	MATH/ Sewall RAP	Professor
Tubbs, Rob	MATH	Associate Professor
Fillman, Christy	MCDB	Instructor
Klymkowsky, Mike	MCDB	Professor
Knight, Jenny	MCDB	Associate Professor
Guild, Nancy	MCDB	Professor Director of Introductory Undergraduate Education
Bolton, Daniel	PHYS	Instructor
Cumalat, John	PHYS	Professor/Chair
Chasteen, Stephanie	PHYS	Research Associate
Lewandowski, Heather	PHYS	Associate Professor
Pollock, Steve	PHYS	Professor
Allen, David	PSYC & NRSC	Senior Instructor
Blair, Irene	PSYC & NRSC	Professor/Associate Chair and Director of Undergraduate Education
Carsten, McKell	PSYC & NRSC	Assistant Professor
Campeau, Serge	PSYC & NRSC	Professor & Director, Undergraduate Neuroscience Certificate program
Day, Heidi	PSYC & NRSC	Senior Instructor
Dimidjian, Sona	PSYC & NRSC	Associate Professor
Smutzler, Natalie	PSYC & NRSC	Senior Instructor
Stratford, Jennifer	PSYC & NRSC	Instructor
Strife, Sam	PSYC & NRSC	Instructor
Wagers, Tina Pittman	PSYC & NRSC	Senior Instructor
Sun, Grace	CHEM	FRCC Faculty
Gomez, Christy	MATH	FRCC Faculty
Monks, Kenneth	MATH	FRCC Faculty
Loseke, Jennifer	MATH	FRCC Faculty/Chair

Faculty Community Comments

(in alphabetical order, except Andy's since is his long)

(note: Much of the faculty feedback has been incorporated in the narrative to make it stronger. Below are comments and suggestions that were difficult to incorporate directly in the text).

Heidi Day, PSYC & NRSC, General Comment: I have a question about the order of the challenges/policies. Is the most important one first? Or are they all equally important? It's not necessary to change anything, but I was curious if the order was representative of their importance to you/the LA program. My only other comment/suggestion would be to explicitly divide your policies into short- vs long-term goals. Eg for space, a reasonable short-term goal would be to cap the class size at 70% for lecture halls. But building the classrooms you envision would be a long-term goal. It seems obvious, but I think if you organize it that way, using bullets as somebody else suggested, it would make it easy to scan, and make aspects of the policy more obviously attainable.

Lisa Corwin, EBIO, Comment to Section III, Policy B: Opt-in Course Development Collaborative: The course collaborative is a cool idea. However, what about those folks who are too busy to participate at a set time every week? Could you provide online resources and one-on-one guidance for faculty who don't have that kind of flexibility in their schedule? One of the things I find most frustrating for instructors or faculty who want to participate in these things and re-design courses is that they are often some of the busiest and most involved and it is tough for them to find the time needed to do the learning piece (and be rewarded). I've encountered this in the CURE FLC I am helping run for TRESTLE. However, Policy C helps with this issue.

Lisa Corwin, EBIO, Comment to Section III, Policy D: Certify collaboration-enabled courses: Collaboration enabled could be digital as well. Students could all be on a platform allowing them to type in questions and all the LAs would be fielding them - on their computers - in real time during the class. - Don't need to add this, just thought I would relay the info if people can't cap their courses.

Lisa Corwin, EBIO, Comment to Section III, Policy H: Collaborations with feeder schools: Do you have a quick stat on demographics at FRCC? Perhaps the % of low-income students?

Jane Garrity, ENGL, General Comment: I would really like to know if how Departmental Coordinators are compensated across campus. In other words, are they given course release, or additional funds (how much)? I myself would like to see this information included in the white paper, particularly since you are striving to create equity among departments across campus.

Nancy Guild, MCDB, General Comment: I notice that in section G you discuss the possibility of LAs getting academic credit for their work—and at the present time they are paid. My understanding is that you cannot be both paid and get academic credit for a course but there may be/(are?) some exceptions.

Faan Tone Liu, MATH,
Section II: General Comment
Suggestion: reorganize so that this section only presents challenges, and does not give solutions yet. This will stop Challenge 1 and Challenge 3 from overlapping as they currently do.
NEW! Challenge 5: Recruit more LAs to CU Teach: We would like to see more of our LA population be future K-12 teachers. We don't have enough applications from Secondary Ed Track majors (at least in mathematics...)

Section III:
Policy B: I like this a lot. But I wish we could highlight more strongly that one of the key outcomes of the program is to train future teachers.
Policy D: We don't have classes like this, but I think it is a great idea. I like this suggestion a lot. Though there are not very many such space (that I know of!) on campus.
Policy H :I like it

Faan Tone Liu, MATH, Section IV: Space Related Solutions:
We need this so badly! For us, if there is space in the room, we're happier to have observers come in and be part of the room. Personally, I find it a little creepy to be observed from the outside.

Enrique Lopez, EDUC, Comment to Section II, Challenge 4: Recruitment and retention of students from groups traditionally underrepresented: I've always liked this idea. As we move forward to strengthen connections to CCs like FRCC, we can also work to establish pipelines here on campus through programs like MASP and SASC.

Julie Lundquist, ATOC, Comment to Section IV: Space related solutions: While I see the appeal of these spaces, I would hope that departments would not be required to use these spaces if we can provide our own space. For example, in ATOC, we often supply equipment for demonstrations that the LAs carry out in their sessions, and it would be complicated/counterproductive to have us attempt to transport that equipment back/forth from its east campus SEEC home to an official collaboration-enabled learning space on main campus.

Nick Schneider, APS, General Comment: Some policies state a specific request, which is good. Others (like this one) has to be read in its entirety to know what's being asked. Suggest all policies are described by bullets as for B and others. Nowadays, all proposals need to be written to be easy to skim.

Natalie Smutzler, PSYC & NRSC: General Comment: I tell anyone who will listen that joining the LA program was the best teaching decision I have made in the 22 years I have been doing this gig. Thank you for the time, thought, sweat, and tears that you put into this program. It is remarkable.

Eric Stade, MATH/Sewell Rap, Comment to Section II, Challenge 4: Recruitment and retention of students from groups traditionally underrepresented: How are K-12 schools going to be involved? I think this is an exciting idea with lots of potential, but maybe a few more details should be supplied. The only other reference I see to K-12 is a cursory reference to high schools in the last sentence of Policy H,, but that's it. By contrast, quite a lot is said about community colleges. I think the K-12 angle could be expanded upon just a bit.

Darin Toohey, ATOC, General Comment: One thing you might consider is finding a role for LAs in the "first year experience." I don't know how much you have been able to track that effort, but there has been a lot of hand wringing over what to do - as a RAP director for 10 years, I saw lots of ways that LAs could enhance learning and retention in the residence halls. Many RAPs employ "peer mentors", which serve in a very similar role as LAs. However, these peer mentors are rarely subject matter experts. Merging the two programs formally could pay large dividends for both - early access to the best first-year students for the LA program, and great mentoring of the most vulnerable students by LA "peers."

Rob Tubbs, MATH: Section II, Challenge 2 Centralization and integration: Has the LA Program become completely decoupled from CUTeach?

Andy Martin, EBIO, Section III:
Policy A: Develop clear standards for awarding LAs: Not sure that will resonate.
Policy B: Basically you are suggesting professional development activities. The success of all professional development programs depends on incentives and you do not provide tangible incentives except for graduate students. Also, in my opinion you cannot change a course without changing the people involved (which is the purpose of professional development).
Policy C: Expand definition of teaching activity: This is focused on incentives and it is disturbing that to become a better teacher you recommend teaching less. Professional development programs should pay faculty to participate as a merit raise and this should include instructors as a pathway to gaining reasonable pay for the work they do. Your model is basically a status quo proposal: buyout of teaching to learn how to teach. We also do buy out of teaching to do service and buy out of teaching to do research. As long as buying out of teaching is an option, we are explicitly de-valuing education on this campus and we march on with the status quo. I would recommend that faculty who effectively use LAs are allocated a merit increase that comes from a source that is higher than the department merit pool because the effects of LAs are felt across the institution and are not restricted to a single department or course. There should be benchmarks for receiving a merit raise for using LAs: 1) engage in professional development associated with the program, 2) take observing tours of different models of using LAs, 3) record data about what happens in classrooms, etc. I love the LA program but is is MORE work to use LAs for me than to not use LAs and yet I get no compensation for doing it. I use LAs because it makes my class better and I my most important learning goal for EVERY CLASS is to have students demonstrate productive collaboration: the LAs play into that well. Still, I could teach my class as is without LAs and have more time to do other things (although the class would be less fun and less interactive). It is a problem (IMO) that I do not receive any compensation for contributing to the improvement of the educational mission at CU by using LAs. I imagine that a financial incentive to effectively use LAs would improve the program and the teaching on campus. This is why I said, in my previous email, that it's all about incentives (and leadership). The money is there: its just a matter of priorities.
Policies D & E & F & H & Section IV: This could be another white paper that can be folded into the development of a student-centered Center for Learning and Teaching built on the infrastructure and organization of the LA Program that has, as a central piece, the value of designing and creating 21st century teaching spaces.
Policy G: Not sure what this is intended to do. There are large number of different ways we assign credit hours already. Internships, independent research, etc.

Tina Pittman Wagers, PSYC & NRSC I second Heidi Day's suggestion about offering shorter-term vs. longer-term solutions as one way to organize some of the (really great) ideas in here, as well as including a bulleted "action item" for each section to delineate the asks/tasks involved with each section. Finally, my experience of the LA program has been such a win-win-win (for myself, students and my LAs) that it has been incentive enough for me, and I am truly grateful for the chance to participate in the program.