

High Quality Learning Experiences

Collaborative Learning Spaces

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Topics



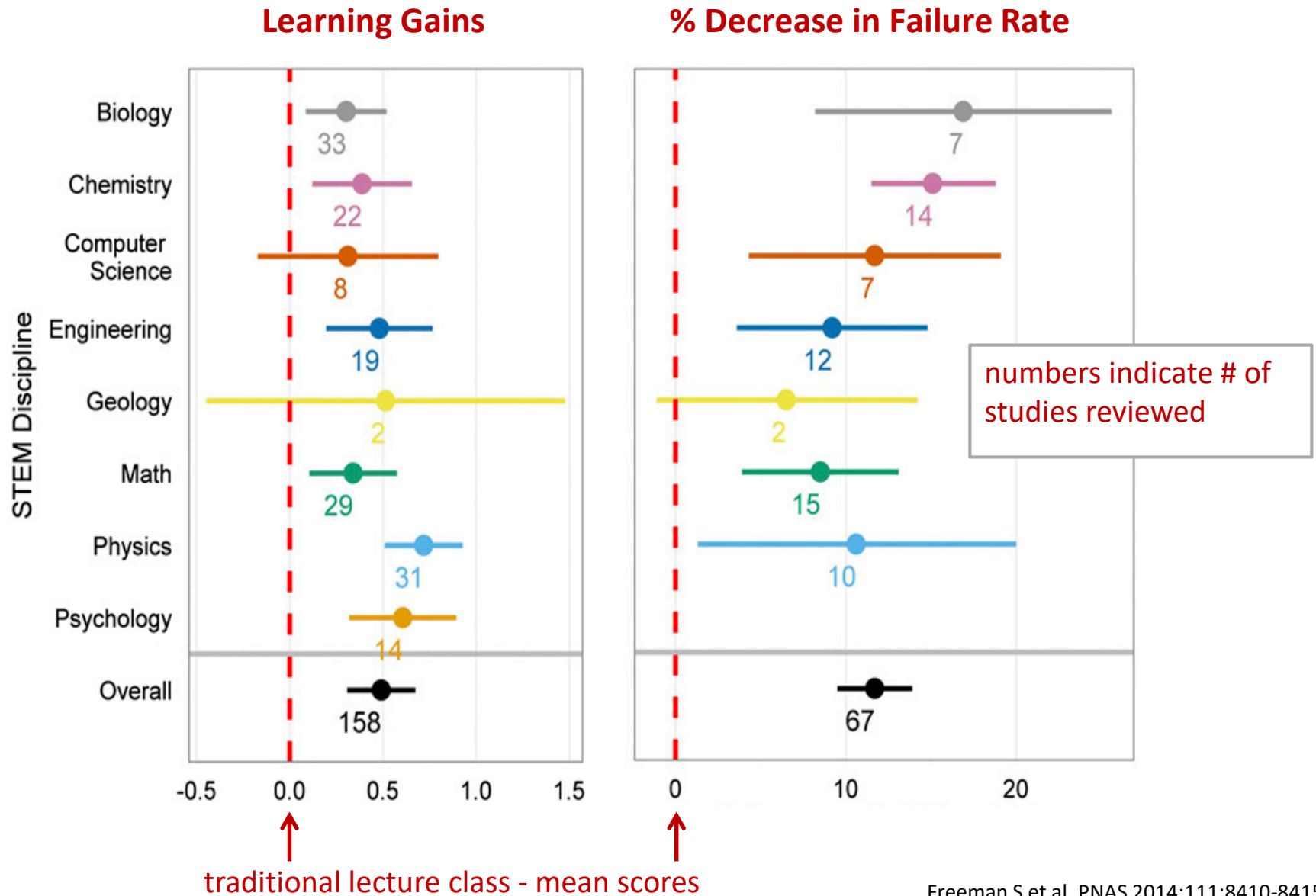
- ◇ Active Learning
- ◇ Collaborative Active Learning - Where are You?
- ◇ Collaborative Learning Spaces at UA
- ◇ Leveraging Space to Promote Change




A large body of research supports
the use of
active learning
strategies.



Active Learning Increases Student Performance



What does **active learning** look like in the classroom?

- Students **collaborate** and practice **higher-order** thinking skills
 - Activities require **synthesis of ideas** rather than simple recall
 - Make **connections** of new information to previously-learned concepts and real-world applications
 - Sufficiently **challenging** to justify group effort
 - Enough time allocated to activities for students to become **deeply engaged**
 - Instructor is the **facilitator**, not the center of the classroom
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Collaborative Active Learning

Where are You?

1

Moderate level of interest in active learning but limited understanding of strategies. No commitment to implement active learning classrooms.

2

Growing interest in evidence-based active teaching strategies. Increasing demand for active classrooms, but few or no rooms on campus.

3

Instructors using evidence-based active learning strategies in traditional classrooms. Medium-high demand for rooms. Planning efforts underway.

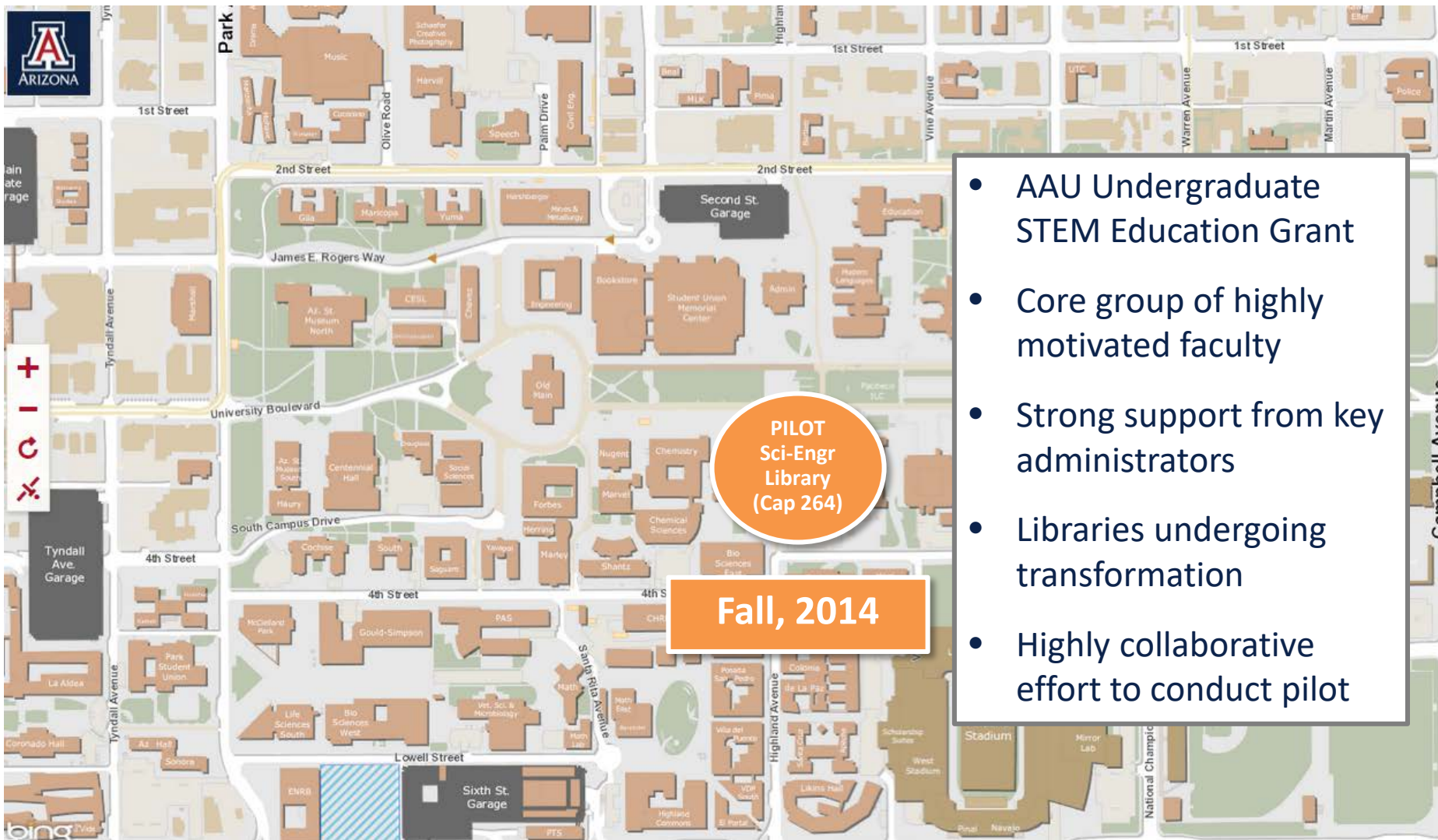
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Institution recognizes value of evidence-based active learning strategies. Implementation efforts underway to build/transform classrooms.

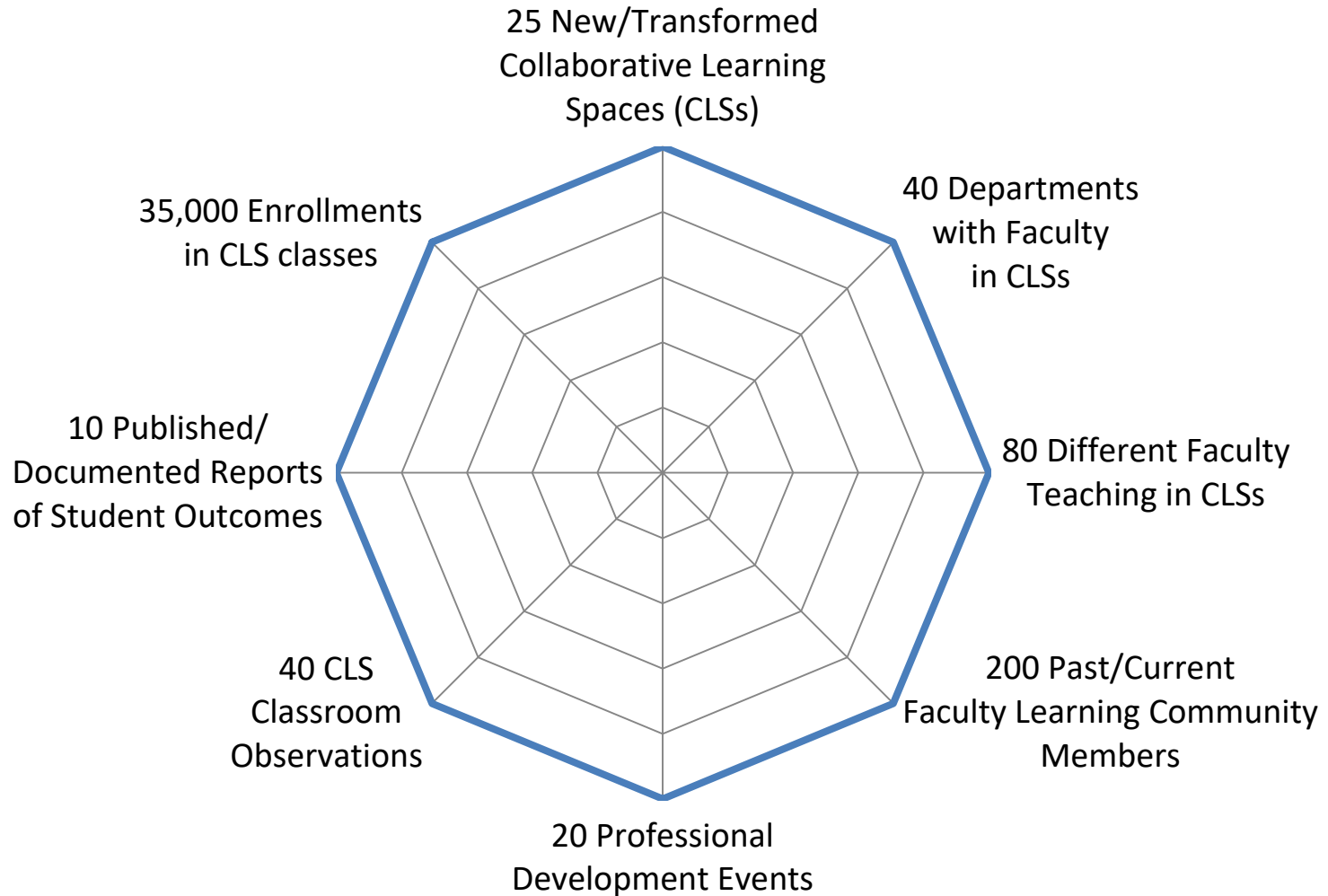
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Optimal utilization of evidence-based teaching and learning strategies in active learning classrooms with plans for continued growth.

The University of Arizona Collaborative Learning Spaces



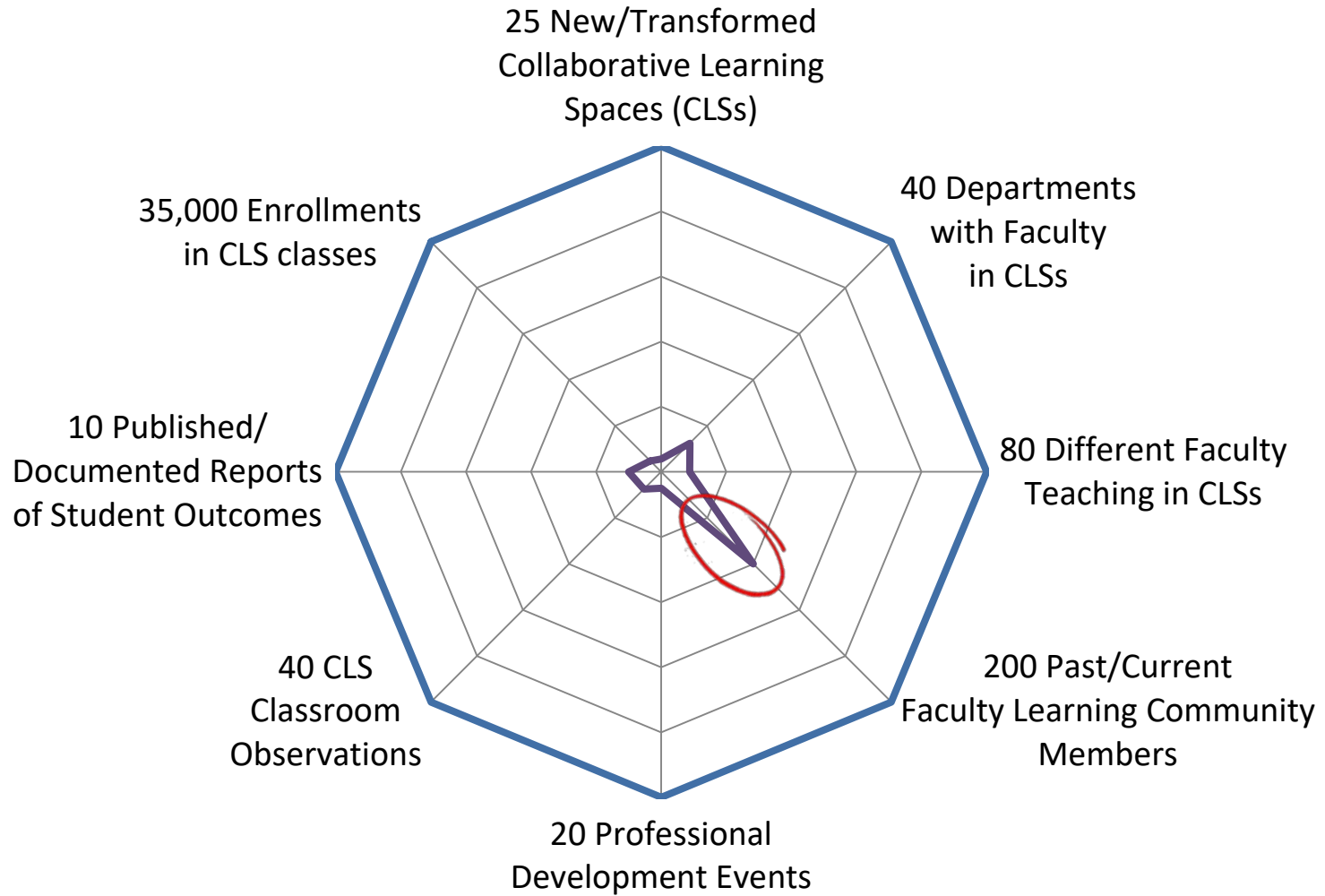
University of Arizona Collaborative Learning Spaces Actuals / 2020 Goals



— 2020 GOALS



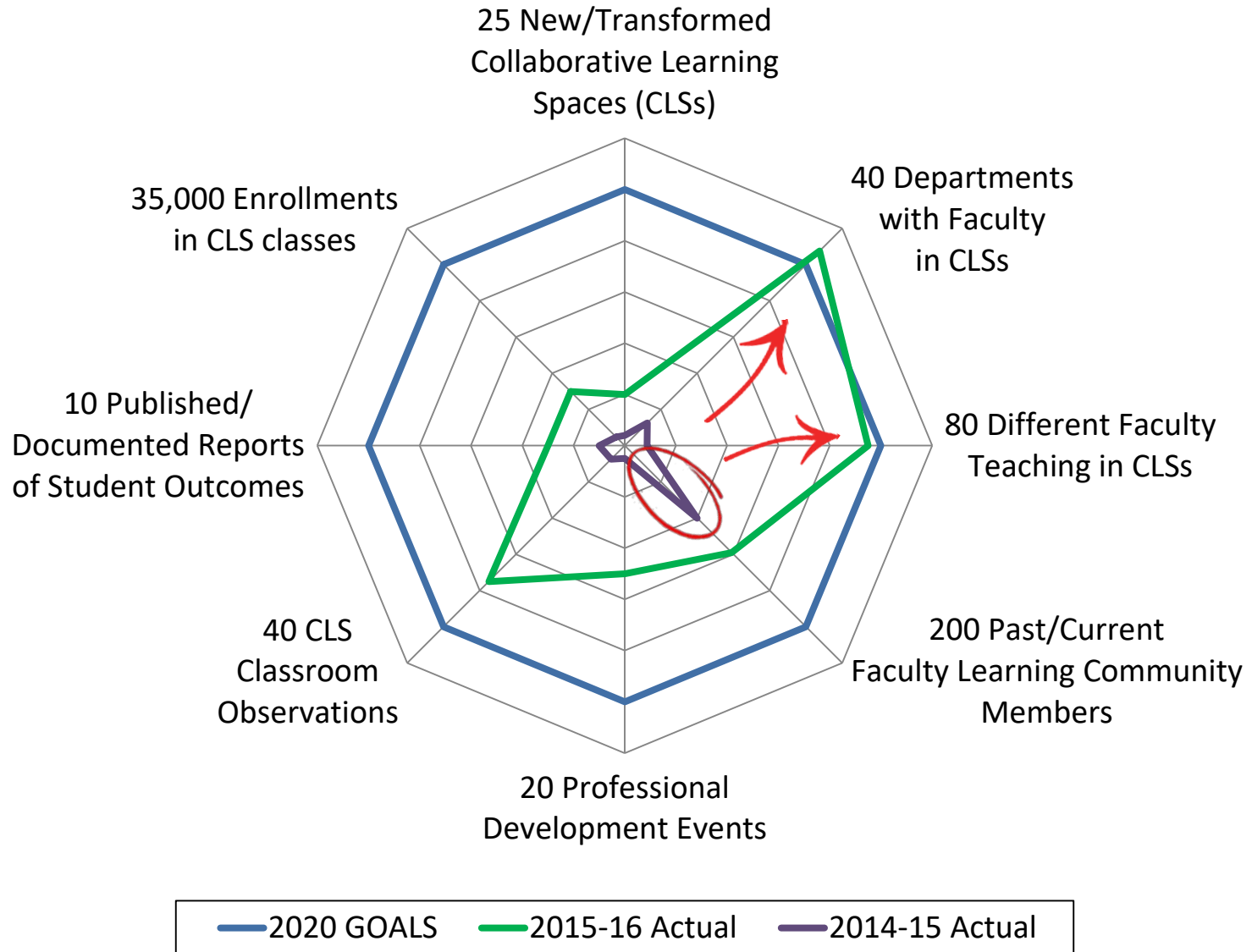
University of Arizona Collaborative Learning Spaces Actuals / 2020 Goals



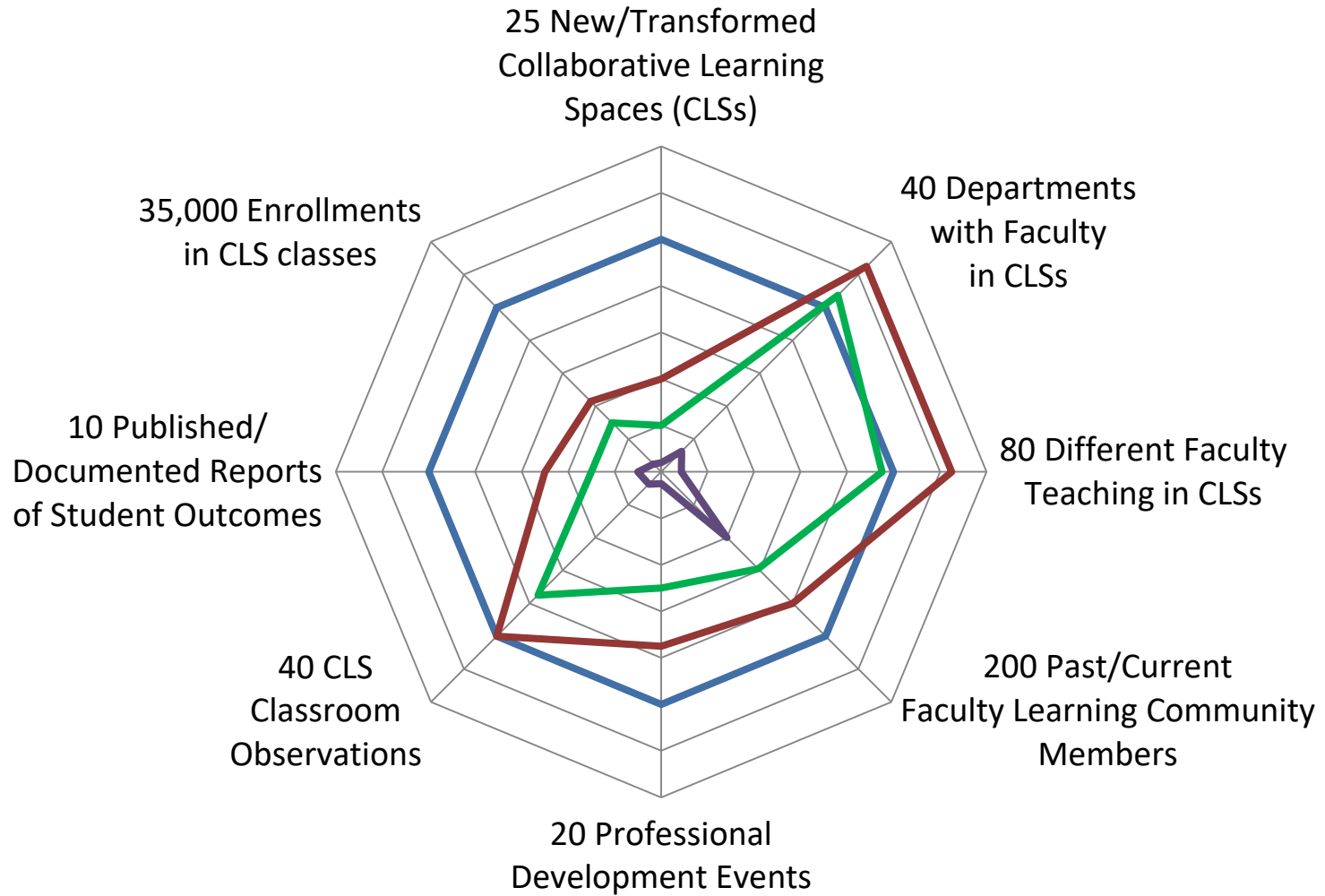
— 2020 GOALS — 2014-15 Actual



University of Arizona Collaborative Learning Spaces Actuals / 2020 Goals



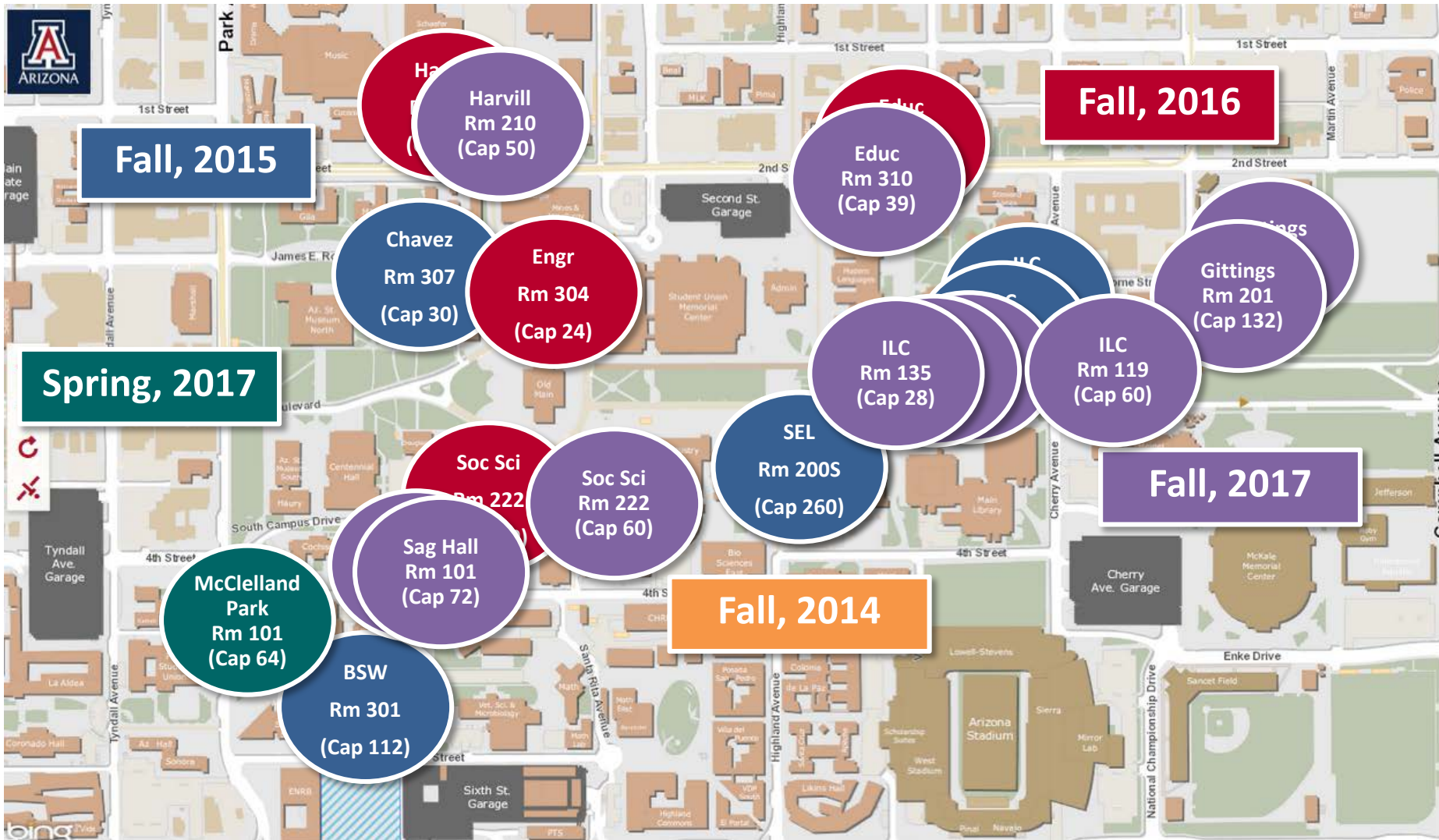
University of Arizona Collaborative Learning Spaces Actuals / 2020 Goals



— 2020 GOALS — 2016-17 — 2015-16 Actual — 2014-15 Actual



The University of Arizona Collaborative Learning Spaces



Collaborative Learning Spaces University of Arizona

- Flexible furniture arrangements with students sitting in small groups (4-6 students).
- Projectors/screens or monitors mounted around the room to ensure that all students have a good view of the presentation materials.
- Enhanced networks and ample power outlets for courses that encourage the use of technology.
- Tabletop whiteboards to engage students in learning tasks.
- Sound-absorbing carpet and splash of color on the accent wall in each room to create an inviting learning environment.

www.academicaffairs.arizona.edu/cls



Chavez Rm 307 (48 students)



Chavez Rm 307 – Collaborative Learning Space (30 students)



Science-Engineering Library Rm 200S (264 students)



Science-Engineering Library Rm 200S (264 students)



Social Sciences Rm 206 Standard Classroom (60 students)



Social Sciences Rm 206 CLS (60 students)



Harvill Rm 404 (70 students)



Harvill Rm 404 (70 students)



BioSciences West Rm 301 Standard Classroom (168 students)



BioSciences West Rm 301 CLS (112 students)



BioSciences West Rm 301 CLS (112 students)

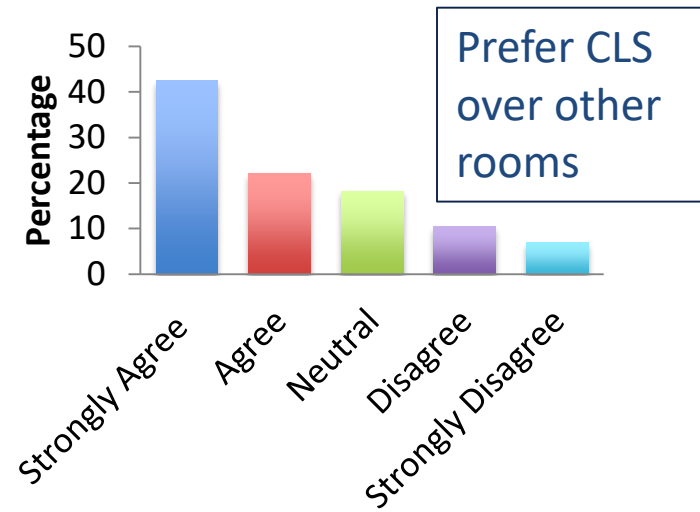
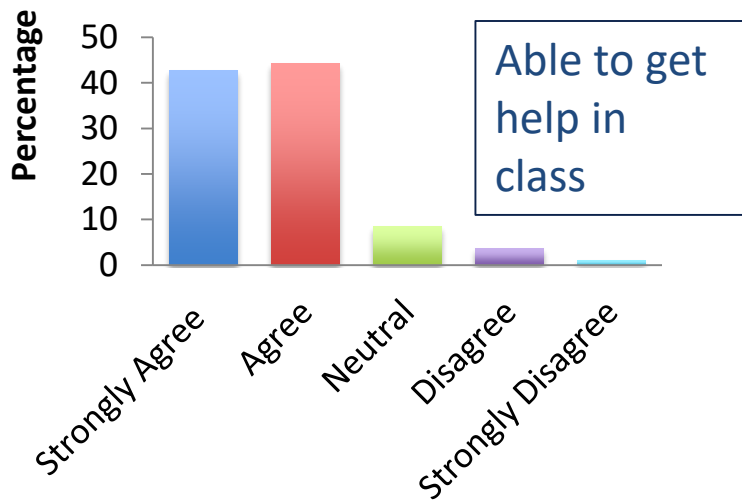
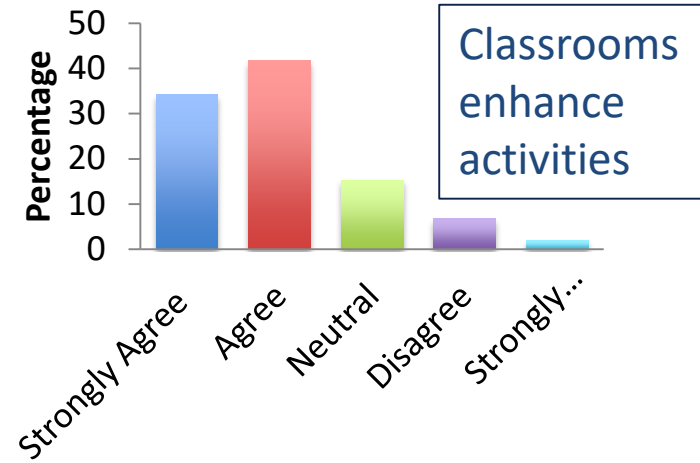
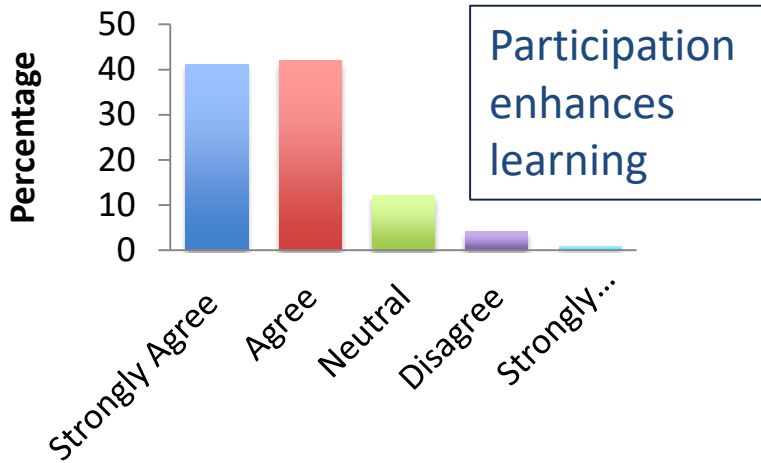


BioSciences West Rm 301 CLS (112 students)




CLS Student Survey, Spring 2016

(n= ~2,500 students)



How do we leverage these spaces to promote change?

1. Strategically select instructors for rooms
 2. Advocate evidence-based teaching and learning across campus
 3. Provide professional development opportunities for instructors and learning assistants
 4. Educate students about how to be better learners
- 

Profile of a Successful CLS Instructor



- ❑ **Participates in professional development opportunities**
 - Faculty Learning Communities (FLC), CLS Workshops, Training videos, DBER publications, One-on-one consultations with OIA professionals, Observation of experienced instructors, Website resources: OIA, CLS & peer institutions
- ❑ **Develops quality course materials**
 - In-class small group activities that foster critical thinking and allow students to grapple with concepts
 - Frequent retrieval practice in and out of class such as low-stakes quizzes
 - Focused lecture segments that promote conceptual understanding of lesson's topics followed by formative assessments
- ❑ **Conducts classes using evidence-based teaching strategies**
 - Lesson goals consistently and clearly communicated
 - Students engaged throughout class in a variety of collaborative active-learning strategies
 - Ongoing evaluation of student learning with appropriate adjustments (formative assessment)
 - Classes taught exclusively by instructor(s) prepared to teach in a CLS
- ❑ **Uses effective classroom management techniques**
 - Assigned groups and/or mixed groups
 - All students expected to engage
 - Off-task behavior addressed
- ❑ **Links in-class and out-of-class activities**
 - Homework, quizzes and exams directly related to in-class activities
 - Tests that assess student ability to integrate knowledge and use critical thinking skills
- ❑ **Supports efforts of colleagues committed to high quality teaching and learning**
 - Scholarly approach to teaching
 - Team teaching opportunities
 - Dissemination of learnings
 - Guidance/advice for new CLS instructors

Collaborative Learning Spaces (CLS)

A better place to learn.

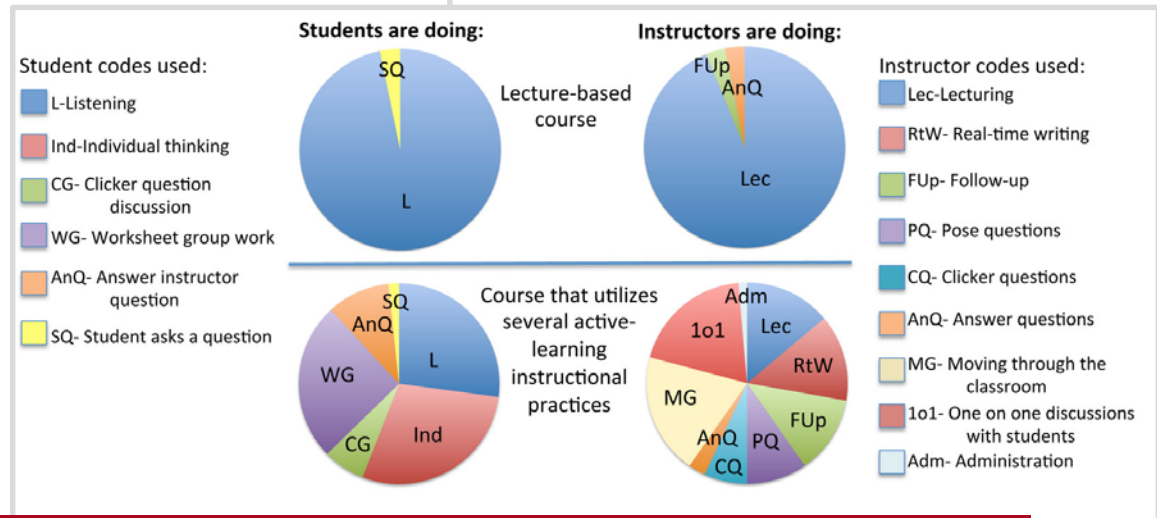
For more information, visit:

www.academicaffairs.arizona.edu/academic-resources

COPUS – A Classroom Observation Protocol *

These pie charts were created using COPUS data collected from a lecture-based class and a class which uses active learning strategies. As illustrated, the instructor in the second class spent less than 20% of the class time lecturing. Evidence shows that students perform better on formal assessments when active learning strategies are used.

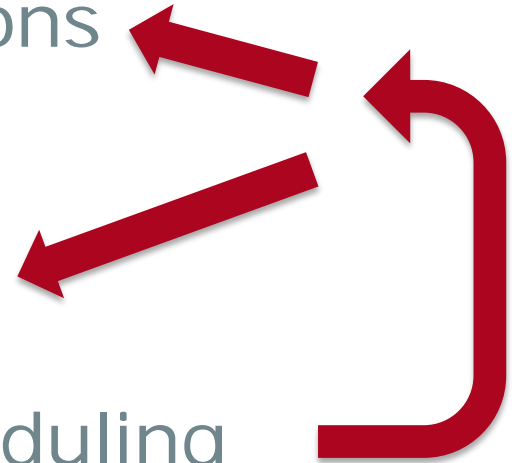
* Smith, M. K., Jones, F. H., Gilbert, S. L., & Wieman, C. E., 2013.



1. Strategically select instructors for rooms

Course/Faculty Selection

- New requests
 - ✓ Clearly defined expectations
- Returning faculty
 - ✓ Verification of suitability
- Assigned by automated scheduling system



<http://academicaffairs.arizona.edu/cls-courses#expectations>



Learning to Learn
UA Learning Initiative Series

www.academicaffairs.arizona.edu/uali



2. Advocate evidence-based teaching and learning across campus

Faculty Learning Communities

- Faculty-driven
- Relevant literature
- Topics of common interest
- Peer observations
- Spring 2017
 - Nine FLCs
 - Eighty-five+ members
 - Thirteen faculty facilitators



CLS Certificate Program for Faculty

What we hope you will get out of this program.

Build a network

Learn from your colleagues

Broaden your knowledge

Reinforce your commitment

Gain confidence/
enthusiasm

Challenge yourself

What we hope you will contribute to this program.

Insights based on your experience

Knowledge about the research

Positive reinforcement and support

Honest and frank advice

Thought-provoking questions

Candid discussions

3. Provide professional development opportunities for instructors and learning assistants

CLS Quick Start Program for Learning Assistants

The program is designed to give you an opportunity to learn from local and national experts about evidence-based teaching and learning strategies and to collaborate with your UA peers to prepare for the upcoming semester.





Learning Assistants Discussion - Starters -

Group/section restrictions.

Four video clips of interviews with Learning Assistants are included below. Watch all four clips and post original comments for two of the clips and respond to comments for the other two. Ideally, you will engage in some meaningful dialog and will post many more than 4 comments.

Note: Your discussion will include only a subset of the Learning Assistants enrolled in the program.

Hide Topics for Learning Assistants Discussion - Starters

Topic	Threads	Posts	Last Post
Responding to student questions - 	3	7 (7)	Lan Matthew Almo January 4 at 11:59 AM
Unsure of answer - Watch the video clip and then follow the instructions below. AA0531 	3	5 (5)	Sujan Jivan January 3 at 9:44 PM
Use of personal devices during class - Watch the video clip and then follow the instructions below. AA0174_1 	3	6 (6)	Sujan Jivan January 3 at 9:58 PM
Helping skeptics - Watch the video clip and then follow the instructions below. AA0153 	3	6 (6)	Lan Matthew Almo January 4 at 12:05 PM

Learning to Learn Series

Research shows that many study strategies commonly used by students are inefficient and result in less lasting learning than the recommended evidence-based strategies. The goal of the **Learning to Learn Series** is to help UA students become better learners. Each part of the series focuses on one evidence-based learning strategy and provides useful information about it, why the strategy works and how faculty can incorporate simple exercises to teach their students to use such a strategy and become better learners.



The **Learning to Learn Blog** is an opportunity to explore important topics related to how students learn and how faculty can help students become better learners. The thought-provoking posts are authored by facilitators and members of Faculty Learning Communities (FLCs) who meet regularly to discuss important topics related to teaching and learning. Educators from UA as well as other institutions are welcome to post comments which are moderated by a committee of UA faculty.

[Learning to Learn Blog](#)

RETRIEVAL PRACTICE

Instructors' Toolkit and more

Retrieval practice is the process of recalling information from memory. It's the effort to remember what has been learned previously and to actively bring it to the forefront of one's mind. Practice implies that retrieval reoccurs periodically after the information, concepts or ideas are initially learned.

SPACED PRACTICE

Instructors' Toolkit and more

Spaced practice is the process of distributing multiple study sessions over a period of time to improve long-term retention. It refers to breaking up the time allocated to study into shorter sessions rather than devoting a large amount of time to a subject in a single sitting.

Elaboration

Instructors' Toolkit and more

Elaboration is the process of making associations between new information, concepts and ideas and what is already known in order to achieve superior learning and performance. When engaged in elaboration, learners call on preexisting knowledge and synthesize it with newly acquired knowledge to create meaningful connections.

Interleaving

Instructors' Toolkit and more

Interleaving is the process of mixing up the materials studied or the skills practiced in a study session rather than focusing on a single topic or skill. Studies show that long-term retention and the ability to apply what is known to new situations

Metacognition

Instructors' Toolkit and more

Metacognition refers to the understanding of how one thinks and learns. It involves planning, monitoring, assessing and adapting one's efforts to learn, understand and perform. Metacognitive practices increase learners' level of awareness of

Growth Mindset

Instructors' Toolkit and more

With a **growth mindset**, people believe that their cognitive abilities are not innate or "fixed" but instead can develop through dedication and hard work. When students develop a growth mindset, they are more willing to take on challenges and

<http://academicaffairs.arizona.edu/learning2learn>

4. Educate students about how to be better learners

Next Steps

- Ensure optimal use of Collaborative Learning Spaces.
- Pursue other opportunities to promote evidence-based teaching and learning (e.g. Department Heads/Associate Department Heads).
- Introduce incoming freshmen to the science of learning - what works and what doesn't work.





Collaborative Learning Spaces

<http://academicaffairs.arizona.edu/cls>

UA Learning Initiative

<http://academicaffairs.arizona.edu/uai>



Or contact Jane Hunter to schedule a campus visit!

jhunter2@email.arizona.edu