

# Inquiry-Based Learning Accelerates Knowledge Acquisition across Disciplines

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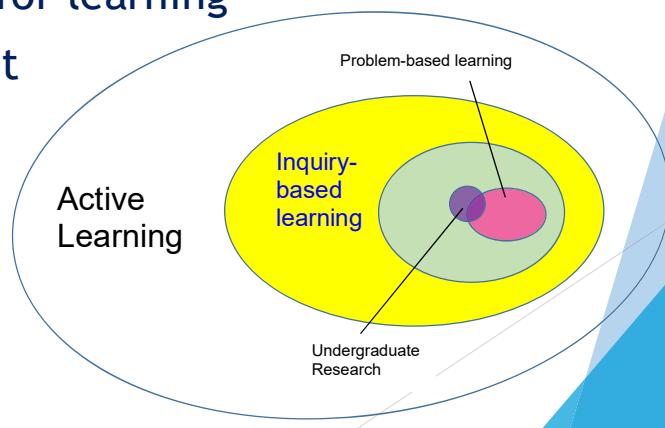
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## Inquiry-based learning

- ▶ Students engaged in the learning process
- ▶ Students apply what they have learned or developed
- ▶ Promotes, critical thinking, problem-solving, and student responsibility for learning
- ▶ Can teach both content and skill development



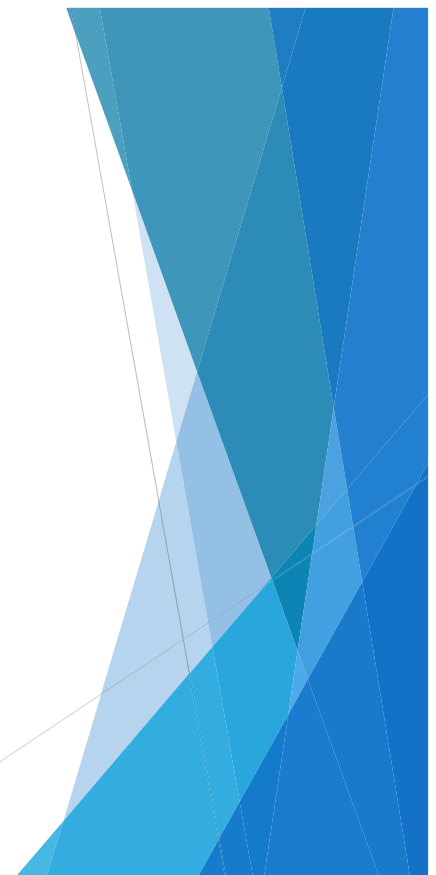
## Ideal Learning Environment Exercise

Think about a course that you have taught or taken.

Draw and describe an ideal learning environment for that course.

## Faculty Mandate for Active Learning Spaces

- ▶ 2013 General Education Update
- ▶ Critical skill development related to inquiry and innovation
- ▶ Need to reconfigure learning spaces



## Active Learning Features

- ▶ Student-centered activities in the classroom: collaborative problem-solving, discussions, and other IBL strategies
- ▶ Physically flexible, with white boards or other devices to support problem-solving or group work
- ▶ Workstations and chairs on wheels promote flexibility and easy redesign
- ▶ Instructors not tied to the front of the room, but circulate to facilitate learning

## Active Learning Spaces

Do not require heavy technology investments

Can be based in classroom or used for collaborative study

- ▶ Makes the study group visible, and potentially, collaborative with other study groups

Should promote

- ▶ Problem-solving
- ▶ Creativity and innovation
- ▶ Engagement of all participants

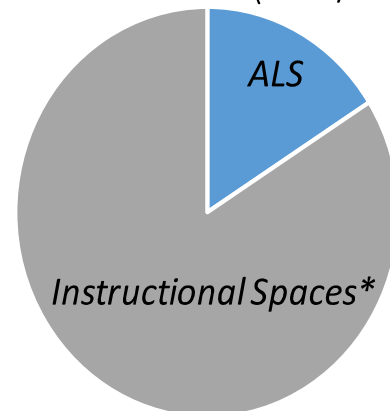
## Active Learning Exercise

- ▶ How might you accomplish Active Learning with and without technology (and related expenses)?
- ▶ Use the grid to jot down your ideas.

## Spelman Campus Plan for Active Learning Spaces







- ▶ Completed 19 classrooms
- ▶ Focus on high-traffic spaces
- ▶ Developed 4-year plan to transform 2-5 rooms per year
- ▶ Faculty input at all stages

ALS Classrooms (as of 5/2018)



*\*Source: Instructional Spaces Inventory in the Lotus Notes Dashboard of Spelman College*

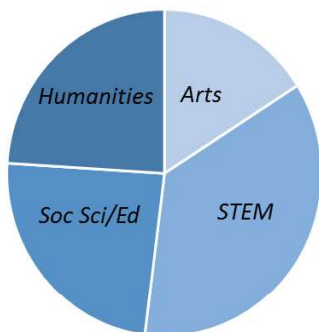
# Moving from Faculty-centered to Student-centered Learning Spaces

	BEFORE (Traditional)	Active Learning Space
Giles 305		
Cosby LL27		
Sci Ctr 238		

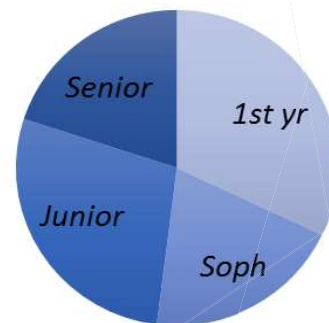
## Faculty and Student Participation

*“These upgrades were great! There are class[rooms] that do not have them and this impedes what I am able to do.”*

Who's Teaching in ALS Classrooms?

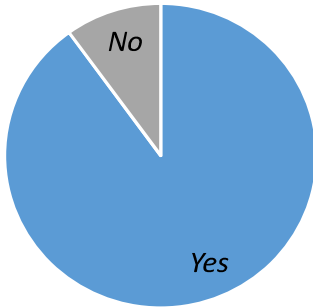


Courses taught in ALS Classrooms

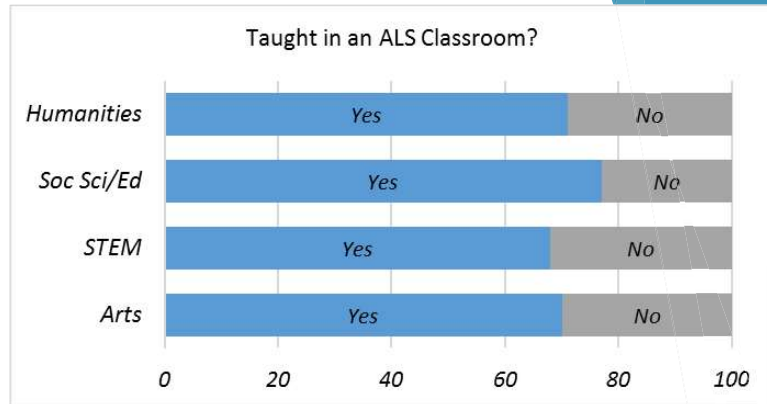


## Faculty Work

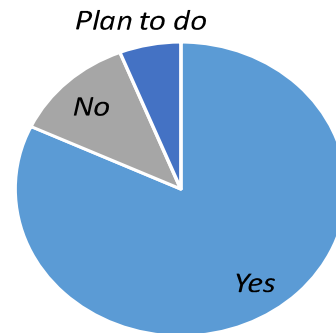
Added Elements to Course?



Spelman College Faculty Survey on ALS classrooms, August 2018



Would Update Instruction if in an ALS Classroom?

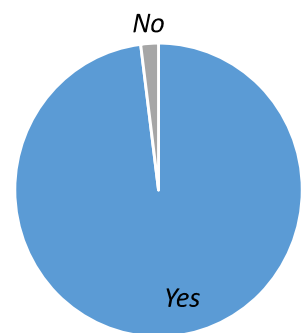


## Impact on Student Learning

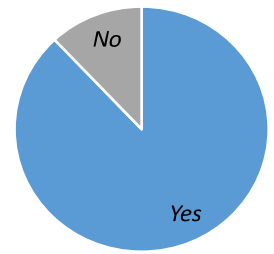
*“The multiple screens in the classroom enhanced greatly the teaching of a media studies class, allowing for video clips, powerpoints, and Moodle material to be projected simultaneously”*

*“As a practitioner and proponent of active learning, the ALS classroom was exactly what I was looking for as an effective pedagogical space.”*

Have ALS Classrooms Increased Collaboration?



Have ALS Classrooms Improved SLOs?



## Impact on Student Learning

*“...even to this day, my students' intellectual development in the course I taught in [the ALS classroom] far excels those of my other courses due to the emphasis on group-centered discussion...”*

*“Having an ALS classroom to teach in has made a huge difference in my teaching, and therefore, in student learning. I am able to be more spontaneous and to respond to discussion direction changes by accessing information on the spot through our enhanced technology. Students are able to interact with each other more effectively because of the flexible seating...”*

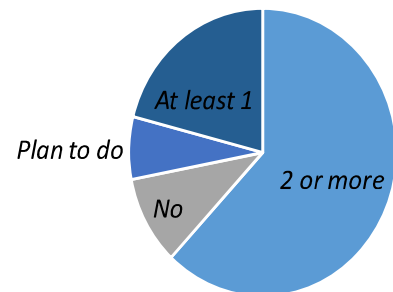
Spelman College Faculty Survey on ALS classrooms, August 2018

## Impact on Student Learning

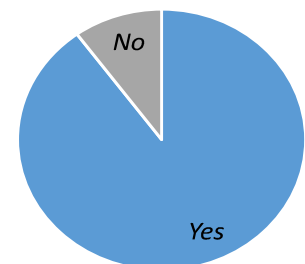
*“It is the intimacy and the opportunity for spontaneity of an ALS classroom that deepens student-student-faculty engagement. While intimacy is possible in a small seminar room, ALS increases the ability to move from table to table, white board to video, to rearrange the [workstations] in such a way that students can enter the process under her own intellectual steam....”*

Spelman College Faculty Survey on ALS classrooms, August 2018

Project facilitated by being in an ALS Classroom?



Have ALS Classrooms Improved Discussions?



## Recommendations for Inquiry-based Learning

### Within the Department

- ▶ Combat reluctance of faculty, with evidence of improved student learning
- ▶ Provide workshops to develop modules or courses
- ▶ Coordinate skill development across courses

## Recommendations for Inquiry-based Learning

### Within a course

- ▶ Add in elements one at a time
- ▶ Explain to students how they will benefit from the increased engagement
- ▶ Select activities/assignments that are interesting!



## Active Learning Exercise

### Active Learning Progressive Matrix

Work from your own idea or consider one of these concepts:

- ▶ Data Analytics
- ▶ Survey Design

## Applications Across the Curriculum

Animal Behavior, Principles of Human Nutrition

General Chemistry, Organic Chemistry

Intermediate Algebra, Pre-Calculus Math I

Elementary Spanish, Spanish Conversation

Honors English, Composition

Intro to Psychological Science, Learning and Behavior

Racism and Law, Black Women and Public Leadership

History of Social Thought, Contemporary Sociological Theory

## In Support of Active Learning

- ▶ A flexible pedagogical approach
- ▶ Expensive technology is useful, but optional
- ▶ Requires investment of time in faculty development
- ▶ Deepens student learning and retention

Questions?