

Preparing to teach in an Active Learning Classroom (ALC)

Learning first. Activities need to help students meet learning outcomes while taking advantage of the space.

Manage expectations. Decide what technology you will or will not use, and communicate this to students.

What is different in an ALC?

	Traditional	ALC	Consequence
Seating	Students facing forward	Students in small groups	Student-student and student-instructor communication easier; attention to the instructor and the screen challenging; no focal point
Teaching style	Writing on board / Projecting presentation to main screen	Project from presentation to wall screens	Maybe demonstrate an example problem, then give students a new problem to solve together
Teacher mobility	Teacher at the front	Use ipad / remote to project slides on wall screens	Teacher is not tethered to the front of the room while presenting. Students' attention is on the wall screen.

Active learning vs passive learning

- Students are reading, writing, discussing, solving problems, not passively listening
- Learner-centered not teacher-centered
- Students doing things and simultaneously thinking about the work they are doing
- Knowledge is constructed by the students rather than transferred from the teacher
- Teacher's role changes to design learning activities and evaluate and guide knowledge construction
- Collaborative group work within cognitive strategies like questioning, clarifying, predicting and summarizing

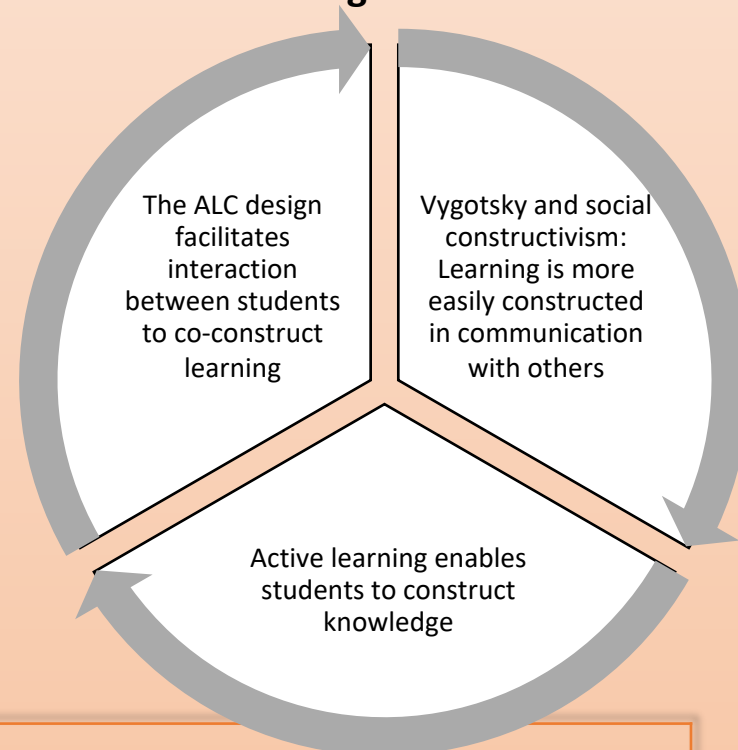
Technical challenges

- Teacher understanding and of active learning and socioconstructivist learning
- Redesigning courses to use ALC affordances to meet learning outcomes
- Getting buy-in from students for active learning

Pedagogical challenges

- Learning curve to learn the controls of the ALC's technology
- Learner training to upskill students to use the room's technology
- Technology overload – be selective!

What is the thinking behind the ALC?



Does it work?

- A [2014 meta-analysis](#) found STEM students were 1.5 times more likely to fail with traditional lecturing than with active learning.
- Active learning can also be used successfully in large lectures, see [this 2018 study](#) of accounting students in Australia.

What do students think?

- A [2019 paper](#) found that STEM students resisted active learning, wrongly believing that they learn better with traditional lectures.
- In [2020](#), a Canadian team reported that the configuration of ALCs led to perceived increases in student engagement
- Another [Canadian paper in 2020](#) reported three lessons learned in the first year with ALCs
- And a [Swedish paper from 2021](#) looked at examination in ALCs for nursing students

And teachers?

- Xiaoshan Zhu, et al. (2018). [Technological Innovation or Educational Evolution? A Multi-disciplinary Qualitative Inquiry into Active Learning Classrooms.](#)
- Avidov-Ungar et al (2018). [Faculty Use of the Active Learning Classroom: Barriers and Facilitators.](#)
- Näverå, et al. (2020). [The Active Learning Classroom Experience: A Passion for Collaboration in Higher Education.](#)

Article summaries in Swedish from CeUL's Aktuell högskolepedagogisk forskning

- [Aktivit lärande skapar både motivation och motstånd hos studenterna](#)
- [Studenters betygsfokus krockar med problemlösande undervisning](#)
- [Den misslyckade undersökningen? Oväntade resultat i studie om aktivt lärande](#)

