

MS Teams Overview

Before we start



Let us know if you can hear us when we do **Audio checks**



Turn on live captions for closed captioning (see screenshot)

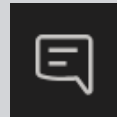


Please note we will be recording this session

During the session



Please leave your microphones off

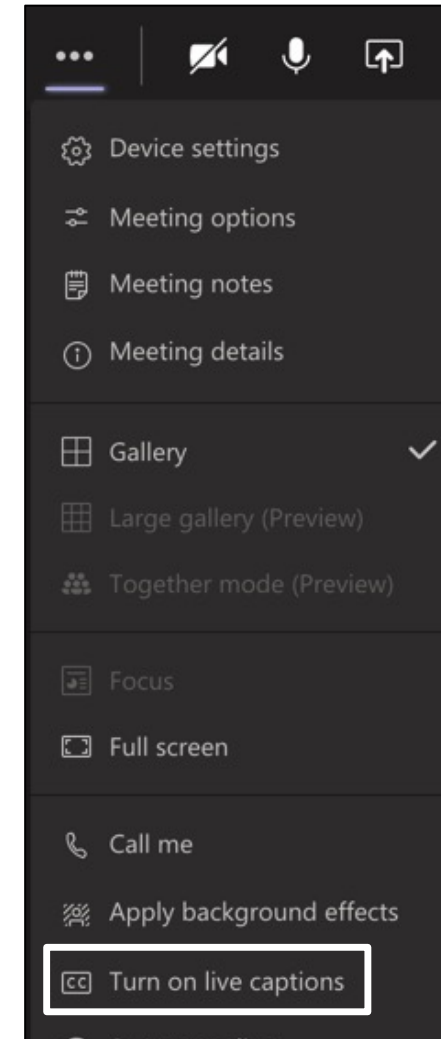


Type questions and comments into the **Chat**

After the session



Complete **Feedback Survey**





CTSI ACUE-Certified Faculty Lunchtime Series

April 4, 2022

Opportunities and Challenges in Promoting Active Learning Online and In-Person

Laura Dempster

Karen Smith



UNIVERSITY OF
TORONTO

CENTRE FOR TEACHING SUPPORT & INNOVATION



Association of College
and University Educators

About Us:

LAURA DEMPSTER

- **Associate Professor**
 - Faculty of Dentistry
 - ACUE Cohort, 2020-2021



KAREN SMITH

- **Assistant Professor, Teaching Stream**
 - Department of Physical and Environmental Sciences, UTSC
 - ACUE Cohort, 2019-2020



Opportunities and Challenges in Promoting Active Learning



STRATEGIES



TIPS



EXAMPLES



EXPERIENCE

What does Active Learning Mean to Me?

What does Active Learning Mean to Me?

START STRONG: *ENGAGEMENT TRIGGER*

- **Begin each class with an *engagement trigger*:**
 - Open with a Question
 - Interactive Review
 - Activate Prior Knowledge
- **Begin as you intend to go on:**
 - Prime students for active learning

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What did we do? Post-it Parade!

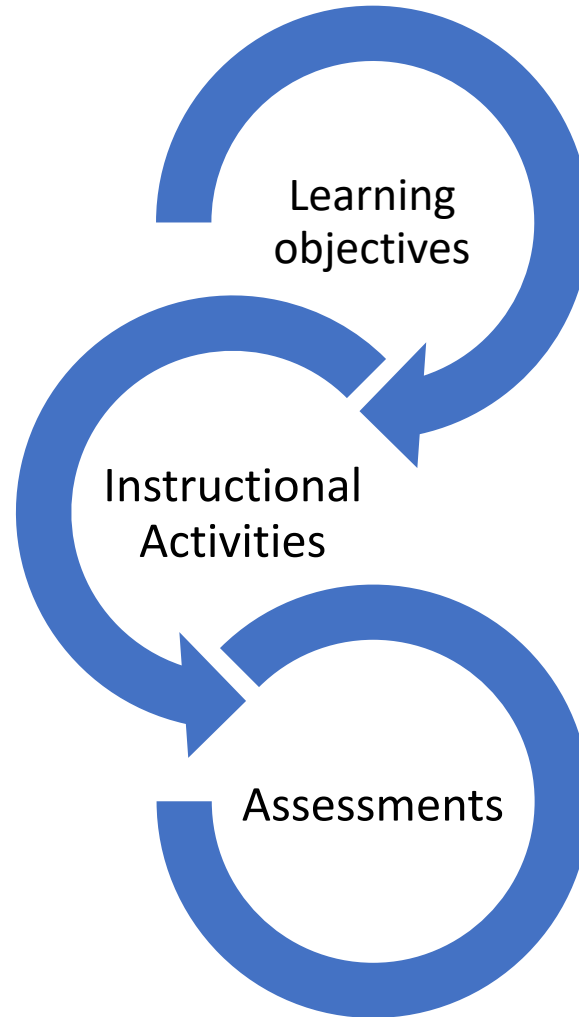


Day 1, Fall 2021, EES1133

What we do ...



Effective teaching



Active Learning Activities: Benefits

Helps promote higher order thinking skills ...

such as application of knowledge, analysis, and synthesis



Engages students in deep rather surface learning ...

and enables students to apply and transfer knowledge better

Types of Active Learning

Communicating thoughts/ideas

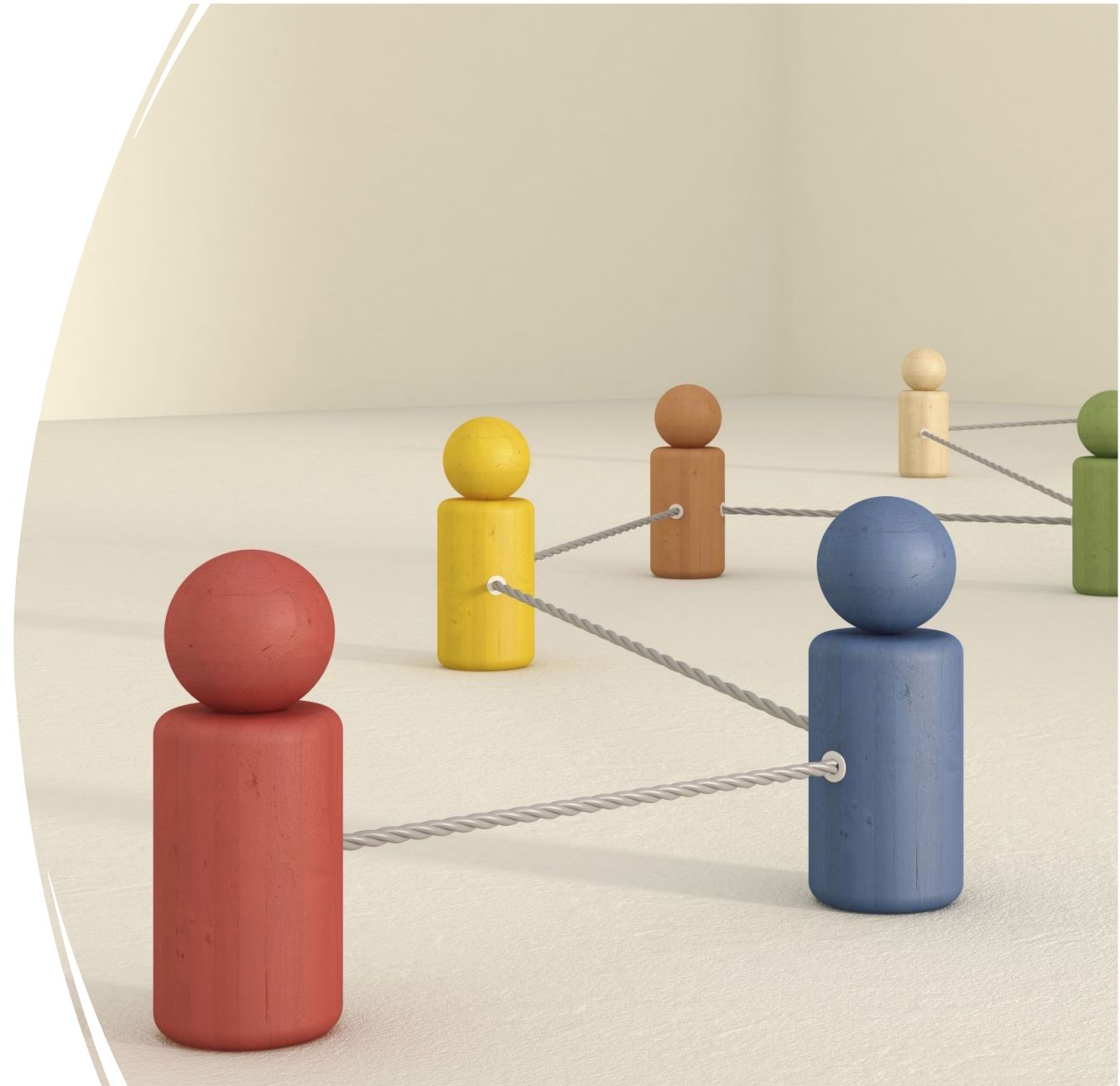
Written expression

Reflection

Giving, receiving feedback

Factors Influencing Student Engagement

- Educator/student relationship
- Involvement in learning activities
- Educational experience
- Level of academic challenge
- Supporting environment



Promoting Active Learning and Student Engagement

Set clear expectations

Frequent discussion opportunities

Student input

Hands on activities

Student choices

What does Active Learning Mean to Me?

EFFECTIVE CLASS SESSIONS: *MINI LECTURES + ACTIVE LEARNING TECHNIQUES*

- Segment your class into *mini lectures* using *active learning* techniques
- Mini lectures should be no more than ~10 minutes!

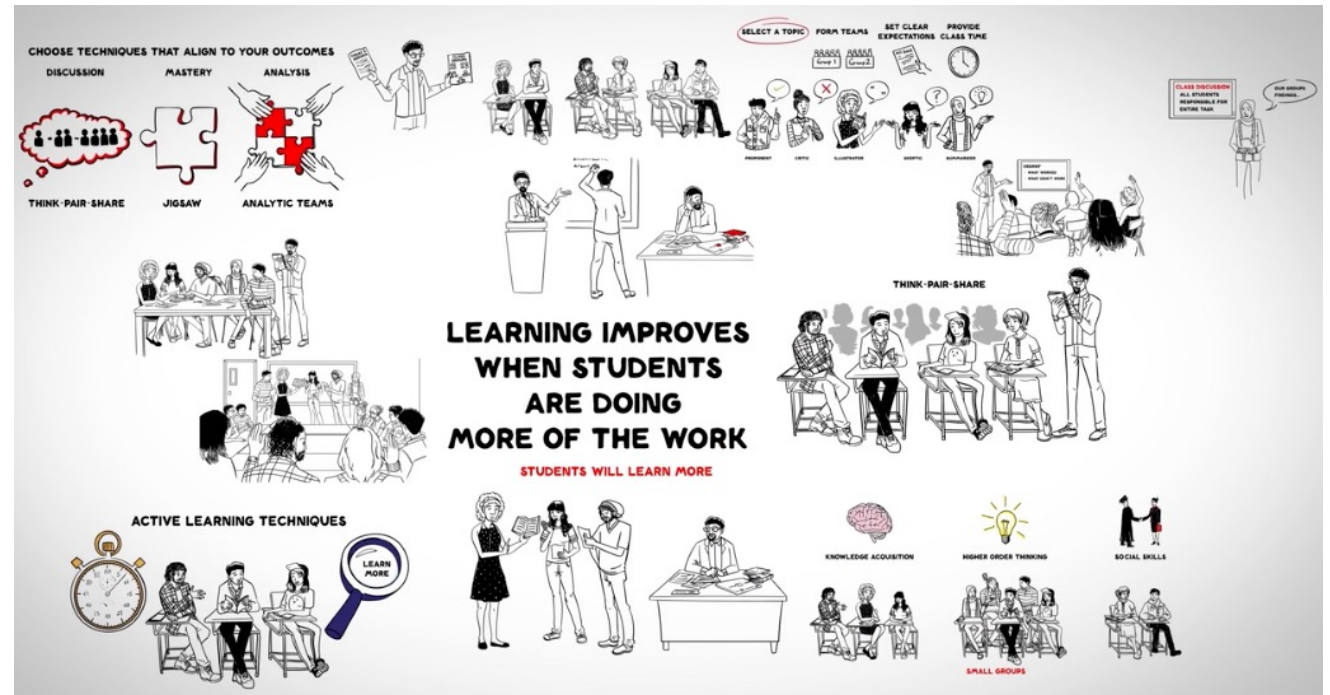


Image Credit: ACUE

What does Active Learning Mean to Me?

STUDENT EXPERTS: JIGSAW

- This strategy involve students becoming “experts” on one aspect of a topic, then sharing their expertise with others in the class.



What does Active Learning Mean to Me?

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In-Person:

Student groups give powerpoint presentations with 2-3 slides on their topic to the rest of the class

Online:

Student groups work collaboratively in break-out groups on a shared document and present to the rest of the class

What does Active Learning Mean to Me?

STUDENT EXPERTS: *FLIPPED CLASSROOM*

- A pedagogical approach where lecture and assignment components are reversed or “*flipped*”. Students work through short videos, readings, etc., asynchronously, while hands-on, active learning activities are done synchronously.

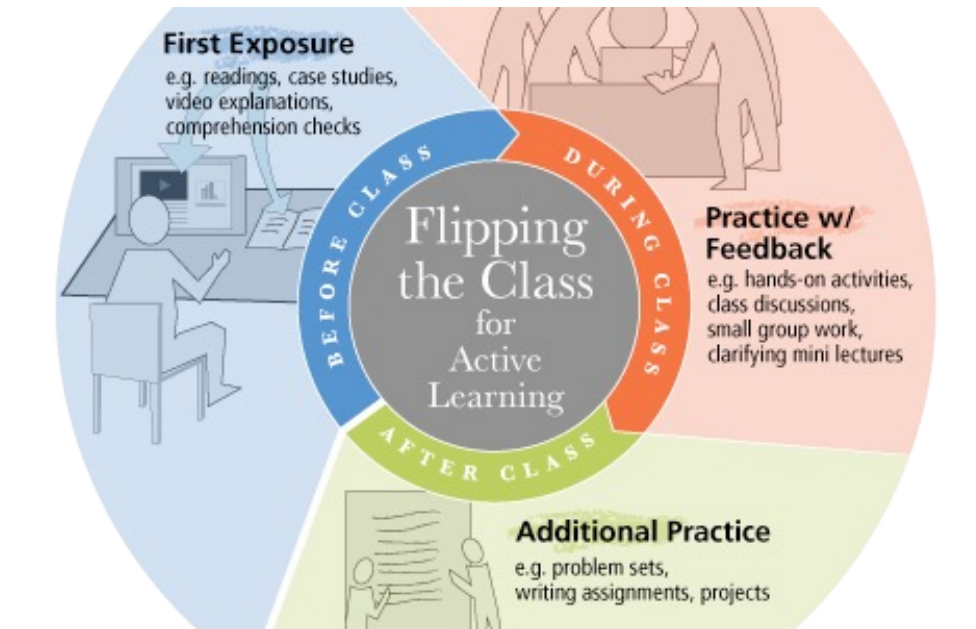


Image Credit: Eberly Center, Carnegie Mellon University

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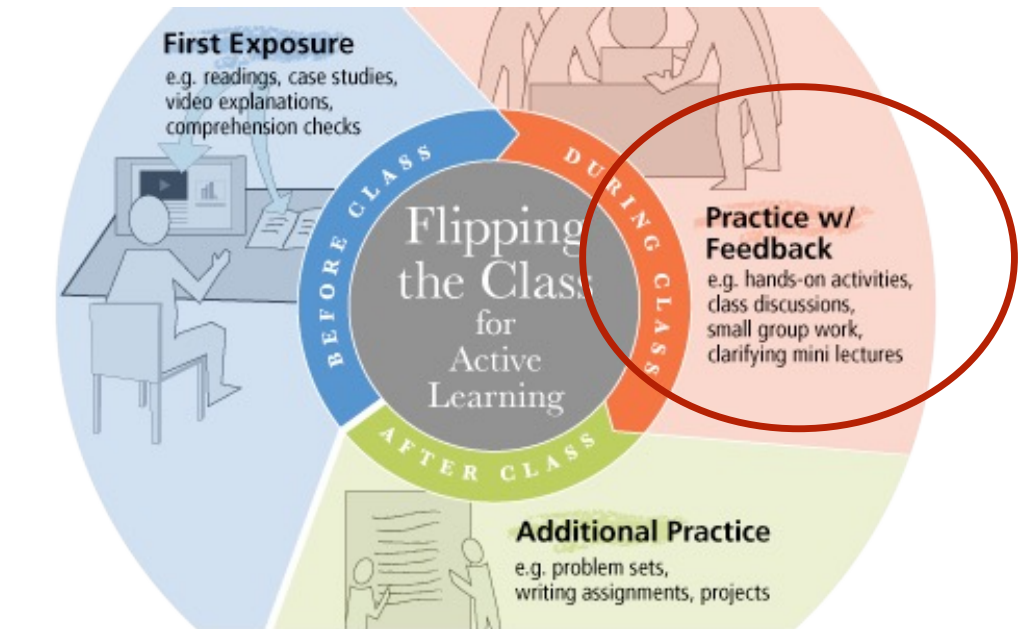


Image Credit: Eberly Center, Carnegie Mellon University

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CLIMATE & GEOPHYSICAL DATA ANALYSIS

- Grad course UTSC MEnvSc program
- ~ 20 students
- Online course materials
- Synchronous small group collaborative problem-solving

What does Active Learning Mean to Me?

STUDENT EXPERTS: *FLIPPED CLASSROOM*

Climate and Geophysical Data Analysis

Search this book...

Climate and Geophysical Data Analysis

Introduction

About this book

How to use this book

What are statistics good for?

Descriptive Statistics

Statistical Hypothesis Testing

Linear Regression

Correlation

Persistence in Time Series

Time Series Analysis

Patterns in Multivariate Data

Epilogue

Powered by Jupyter Book

← Introduction

The goal of this book is to provide upper-year undergraduate and graduate students with a working knowledge of the data analysis concepts and tools most commonly used in climate science and geophysics.

Note: This book is for use in, but is not the primary course website for, [EES1132/EESD21](#) at the University of Toronto Scarborough. For all relevant course information including announcements, assignments, etc. please refer to [Quercus](#).

Let's get started with a brief introduction to the course.

intro_video What is Climate Data Analysis?

12 views · 0 likes · 0 comments

This course is all about using **statistics** to analyze **climate data**.

Observed change in surface temperature 1901-2012

By Karen Smith
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CLIMATE & GEOPHYSICAL DATA ANALYSIS

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CTSI, Flipped Classroom: <https://teaching.uwo.ca/teaching/learning/active-learning.html#:~:text=This%20strategy%20requires,with%20the%20material>

What does Active Learning Mean to Me?

EXPERIENTIAL LEARNING:

DEN202Y Communication Skills

- **Students play the role of the dentist with a simulated patient**
- **Assessment of student's communication skills**
- **Student dentist self evaluates communication**
- **Peer observer provide verbal feedback to student/dentist**
- **Written reflection on strengths and areas needing improvement**

What does Active Learning Mean to Me?

GROUP WORK:

DEN308Y Behavioural Science

- Students participate in breakout groups
- Case scenarios related to session topic provided for discussion
- Group facilitator reports on discussion at large group debrief

What does Active Learning Mean to Me?

USE OF CHAT FUNCTION:

DEN308Y Behavioural Science

- Students engage in discussion with presenter either using chat or unmuting microphone
- Session content directly related to clinical care

What does Active Learning Mean to Me?

TICKET OUT THE DOOR:

Students comment on:

- **What they learned**
- **What was most relevant**
- **Anything missing or that students would like more information about**

Learn More About ACUE and if it's the right PD for you!

COURSE IN EFFECTIVE TEACHING PRACTICES (ETP)

- **9-month online course**
- **25 self-paced online modules** (each module takes up to 3 hours to complete and involves both application and reflection)
- Learn a **range of practices** that can be applied in teaching both in-person and online courses
- **Cohort based** - meet at key points in the year with facilitators and colleagues to discuss their experiences implementing strategies and approaches learned through the modules in their own classrooms.
- **Optional supports** available to further cohort connections and course goals (e.g., Coffee Chats, Course Mentors, module work sprints).

Interested? email ctsi.teaching@utoronto.ca with your questions.

Questions?