Designing Impactful Activities for Online Learning

2021 Online TA Institute

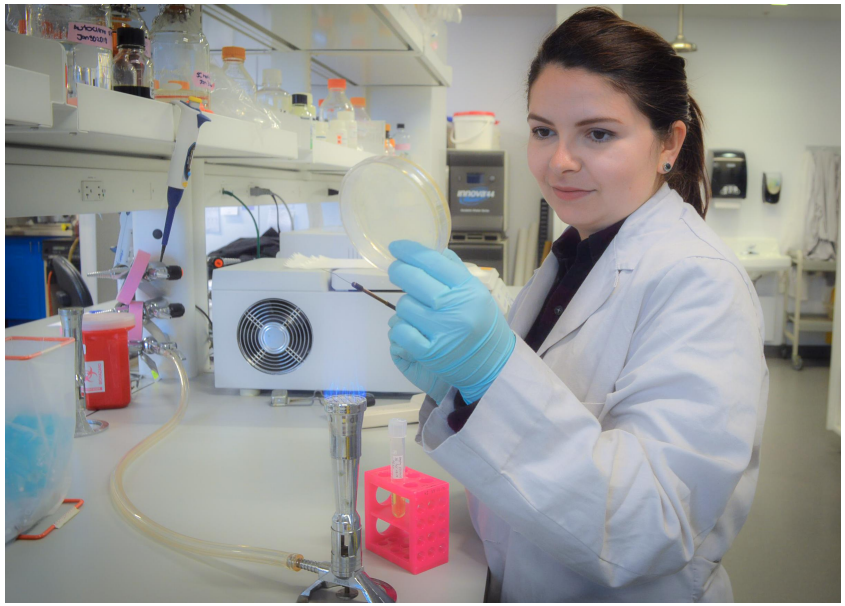
Jennifer Brown
Jonathan Agyeman

Whose land are you on?

https://native-land.ca/

We challenge you to research into the history of learning that has been ongoing on these lands for centuries past.

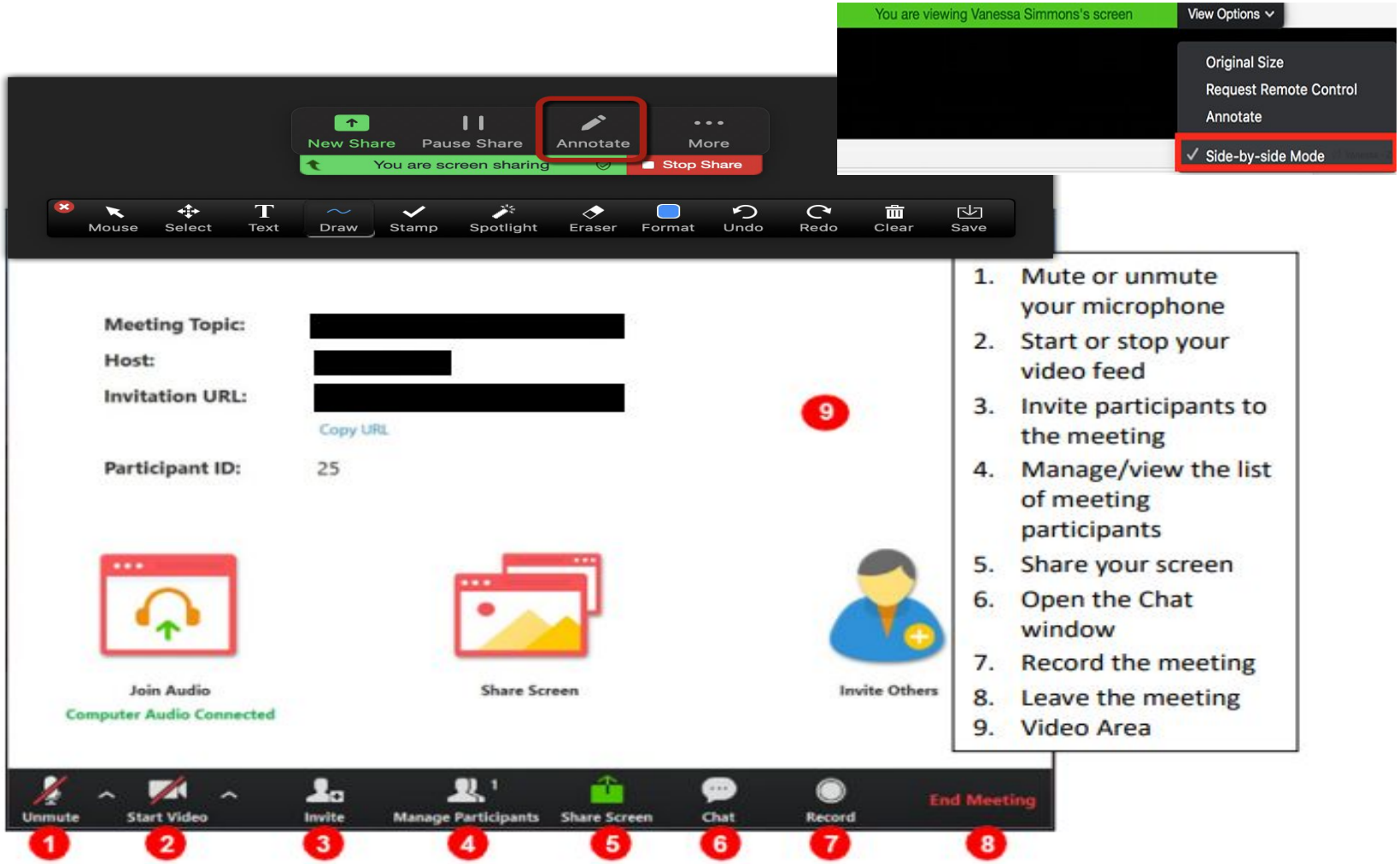
Introduction



Jennifer Brown
jennifer.brown@alumni.ubc.ca
PhD Candidate in Pharmaceutical Sciences
Lead Facilitator, Graduate Student Programs, CTLT

Introduction

Jonathan Agyeman
j.agyeman@stat.ubc.ca
PhD Student in Statistics
Facilitator, Graduate Student Programs, CTLT


You are viewing Vanessa Simmons's screen
View Options
Original Size
Request Remote Control
Annotate
Side-by-side Mode
New Share
Pause Share
Annotate
More
You are screen sharing
Stop Share
Mouse
Select
Text
Draw
Stamp
Spotlight
Eraser
Format
Undo
Redo
Clear
Save
Meeting Topic:
Host:
Invitation URL:
Copy URL
Participant ID:
25
9
Join Audio
Computer Audio Connected
Share Screen
Invite Others
1. Mute or unmute your microphone
2. Start or stop your video feed
3. Invite participants to the meeting
4. Manage/view the list of meeting participants
5. Share your screen
6. Open the Chat window
7. Record the meeting
8. Leave the meeting
9. Video Area
Unmute
Start Video
Invite
Manage Participants
Share Screen
Chat
Record
End Meeting
1
2
3
4
5
6
7
8

intractive learning

Your Most Impactful Learning Experiences?

Share your experience by using the annotate tool.

The teacher made the class fascinating by teaching it as a story- also made what we were learning connected and relevant

The instructor used different techniques

The instructor was very friendly and kind

Practical experiences always attracted me

hands-on learning

An instructor tried to include our interests while talking about course material

Hide Tanning - physical learning along with cultural teachings - the 'DOING'

Lots of repetition - learned a technique and then had many chances to practice it

Having other students who were as engaged as I was with the material under

difficult and critical but engaging discussions

autobiographical inquiry experiences

community engaged learning experience

a really engaging discussion

When I gave a suggested interpretation of a passage

Respectful time of exploration

enthusiastic onlin

Literature Class, the teacher was very excited by and

Some does not like to have instructor in the lecture. Made me feel empowered.

for break activities

screenwriting class--teacher was always really enthused and genuinely cared about her students

experiential/applied learning

learning outside of the classroom

Pratical examples

All of my most impactful experiences were had when the instructor was

Suzana Espin...

Learning Objectives

- Identify different stages of learning and assess how to implement beneficial learning activities at all stages of the learning process. (Puzzle piece 1)

- Recognize barriers to student motivation, participation, and learning outcomes. (puzzle piece 2)

- Discover online teaching tools and develop strategies for designing online learning activities at specific stages of the learning process. (puzzle piece 3 and 4)

- Practice designing a student-centered, impactful online learning activity. (Assembling the puzzle)

Puzzle Piece 1 - How do students learn?

- Who is doing the learning?
- What do we want learners to know?
- Where does learning occur?
- Why should learners be interested in the information being provided?

Scenario: Math!! Math!!!! Math!!!!!

1. You are going to teach your nephew the addition of numbers. This is his first lesson. How are you going to go about this?

2. Your nephew has had lessons on the addition of numbers and you now want to teach him about the multiplication of numbers. How are you going to go about this based on their prior knowledge?

Discussion - How are you helping your nephew learn?

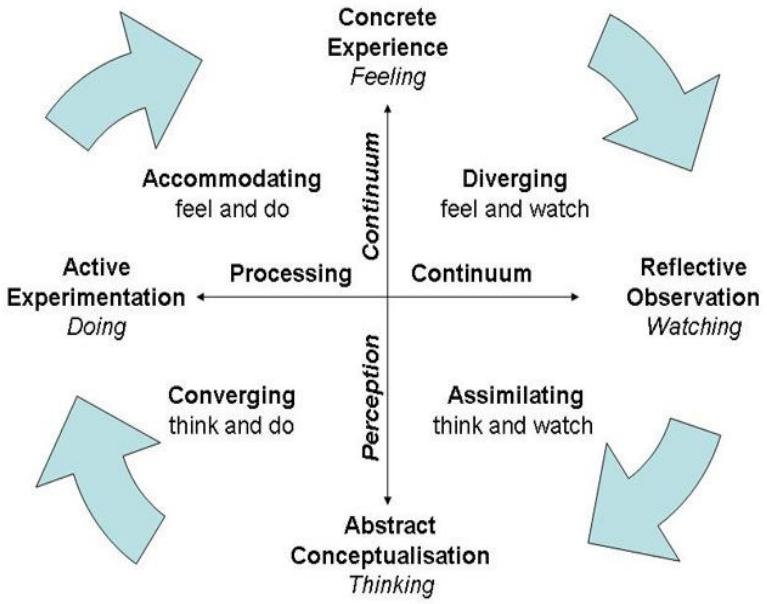
Scenario 1 - use physical objects (coins, cookies) to demonstrate - make the lesson more concrete and less abstract; make it easier for the nephew to understand; otherwise, may feel confusing; use real-world examples of things they know and people they know

Scenario 2 - use what they learned from the first scenario and tie it into the next lesson; break things down into familiar concepts, like grouping (similar to addition; building on the knowledge from the first scenario (addition))

In general: connect to real-life - why is it beneficial or exciting to do this - how it is entangled in their life

Kolb's Cycle of Experiential Learning

- Developed by David A. Kolb (1984) and the model is based on Experiential learning.
- There are **four stages** in this model.
- Ideal learning process engages all four stages of the model.
- One may begin at any stage, but must follow each other in the sequence.

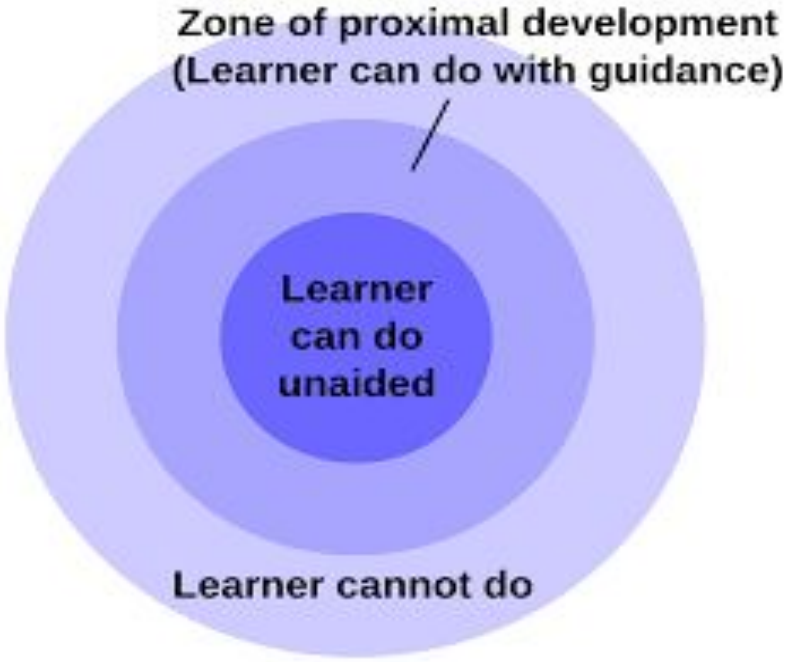


Kolb's cycle breakdown

Stage	Description	Activities to Help learners
Concrete Experience (or "**DO**")	Emphasizes on personal involvement with an experience in everyday situations	- team games - problem solving - discussions
Reflective observation (or "**OBSERVE**")	Taking time out and reviewing what has been done and experienced.	- ask for observations - write a short report on what happened - quiet thinking time
Abstract Conceptualization(or "**THINK**")	Comparisons between what has been done and what is already known.	- present models - give facts - break down, classify, and analyze
Active experimentation (or "**PLAN**")	Bringing everything learnt together into practice.	- give learners time to plan - use case studies and role plays. - use real problems.

Zone of Proximal Development

- Developed by Lev Vygotsky (1935) and is based on guided learning.
- Theory states that learning occurs when learners are guided by one who is more knowledgeable and skilled.
- Three components to consider.
- Zone of Proximal development is the **distance (guidance zone) between what a learner can do and what a learner cannot do**.
- This zone can be big or small depending on learner.



ZPD breakdown

component	What are we looking out for?	Activities
What learner can do	- Find out what learners can do on their own without help.	-pre-assessment - discussions - short write ups - case studies
What learner can do with guidance	- Identify the minimum amount of intervention needed to get learners to desired point. - Identify the point to adjust interventions as learning is ongoing. - What tools are needed to support learner (scaffolding)	- Demonstrations/solving examples before asking learners to try. - discussions (with guided verbal cues) - Case studies (practice with guidance)
What learner cannot do	- Find out what learners cannot do on their own without help.	-pre-assessment - discussions - case studies

Reflection

1. Can you identify Kolb's and/or ZPD in the scenarios presented?
   - **We are getting the nephew to THINK and DO - practice the problems**
   - **THINK about how the addition is related to multiplication, for example - give the nephew the chance to reflect**
   - **Using prior knowledge of the nephew - they KNOW the numbers, needs guidance to manipulate numbers in multiplication**
   - **How much intervention to provide support? How can we know what intervention to provide? Need to pre-assess to see what he KNOWS. Instructor needs to identify the gap**
2. What active learning strategies can we use?
   - **Use guided questions for the learner**
   - **What else? We can learn later in this lesson**

Summary

Kolb's
DO -get learners involved in the action and **REFLECT**- give time to think about what happened in order to make connections and keep repeating this cycle. Learning does not occur until reflection has begun.

ZPD

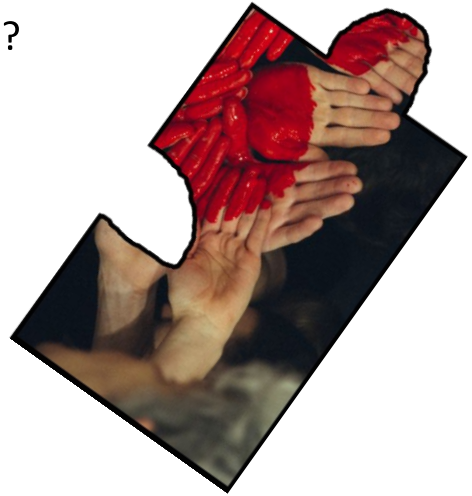
Identify the gap(**how much support is needed**). Try to provide minimum but guided support during this period until the instructor is sure that learner has now moved to the zone where they can complete the task without help.

Puzzle Piece 2 - What do students need in order to learn?

We know how people learn in theory, and before we move into some practical ideas to help students learn, we need to consider another important piece of the puzzle that students need, in order to effectively learn.

What challenges may students face in online (or in-person) learning?

- Motivation
- Online accessibility
- Inclusion
- Diversity



Activity

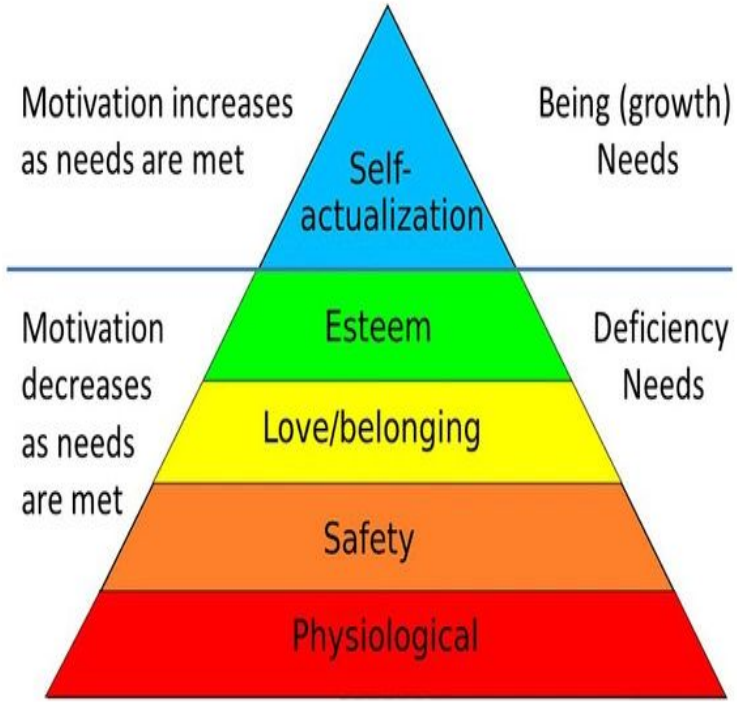
In breakout rooms, discuss and summarize on your slides (find your group number):

- Why is motivation important in the learning process?
- What challenges may one face in an online (or in-person) learning?
- Why is exclusion prohibitive to learning?
- How do we ensure that all learners are considered in planning activities?

- Timeline
  - 12 min working on slides in breakout room (I'll keep the time)
  - 10 min break + "gallery walk": look individually at other group's slides
  - Discussion as a large group

Theory of Motivation: Needs

- Motivation for learners could be **extrinsic** or **intrinsic**.
- Extrinsic motivation is driven by **external forces** (i.e., good grades, getting into a desired program etc.)
- Intrinsic motivation arises from an **inherent desire** to achieve a mastery of the subject and/or to learn a sense of self fulfillment and enjoyment.
- It is easier to provide external motivation than internal motivation but making the learning process engaging, interesting, and relevant may help students feel more intrinsically motivated to learn.



A.C.T.I.O.N Framework (Incidents of exclusion)

Ask clarifying questions to the person whose behaviour you see as a microaggression in order to understand what happened. (e.g., “I want to make sure that I understand what you were saying. Were you saying that...?”)

Carefully listen to what they have to say.

Tell your observation in a factual manner (e.g., “I noticed that...”). Here, focus on describing what the person did, instead of evaluating the action or the person (e.g., “You are homophobic”).

Impact Discuss the potential impact of the microaggression on others without singling out the person whom you think was affected by the incident (e.g., “How do you think this type of comment would make other people feel?”). Focus on the impact of the microaggression, instead of the intent.

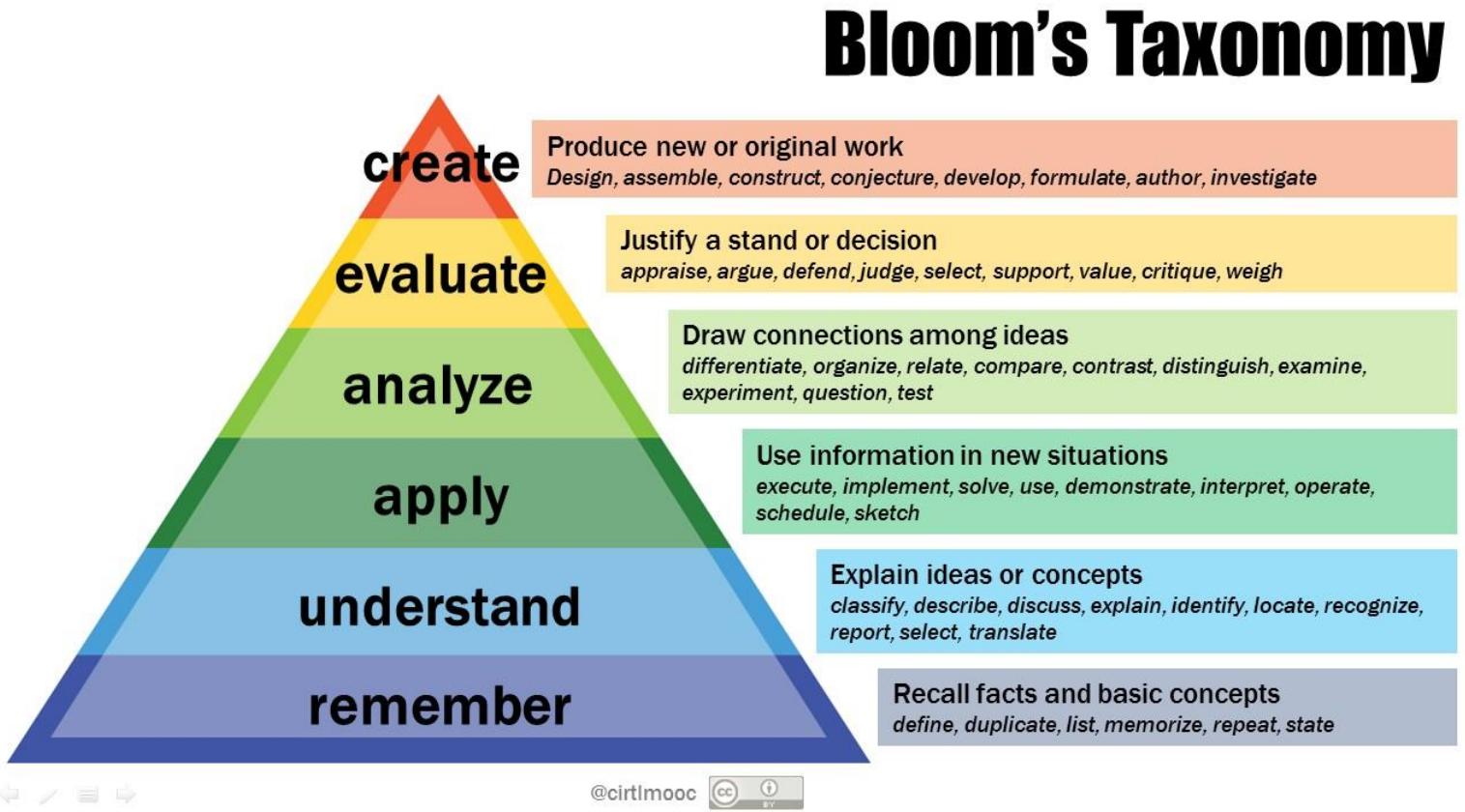
Own your thoughts and feelings around the impact of the microaggression. (e.g., “When I hear your comment, I think/feel...”)

Summary

- Motivation helps learners actively engage with material.
- Exclusion may hinder the learning process.
- Be aware of technical issues, time-zone and the learning environment (online).
- Plan different forms of activities to accomodate all learners.

Puzzle Piece 3 - What active learning tools and strategies can we use to effectively teach?

Higher-Ordered Thinking Skills



Reflection: How does motivation impact a learner's ability to engage in these higher-ordered thinking skills in a classroom?

Active Learning Techniques

Technique	Description
Gallery Walk	Stations or posters are set up around the classroom or on a shared document (online). Small groups of students (or individuals) visit each station, performing a task or responding to a prompt, either of which will result in a conversation.
Fishbowl	One group of students will be discussing (center of the room OR with video on (online)), and another group will be observing discussion (outside the center OR with video off (online)). The discussion students have a conversation based on a pre-determined topic. Observation students observe, take notes, or perform some other discussion-related task assigned by the teacher.
Debates	Students are split into groups and assigned a point of view on a specific topic. Students may be assigned a point of view that is in direct opposition to their own. Students support their viewpoint by providing evidence, rationale, etc and attempt to find flaws in the other groups' arguments.
Jigsaw	The instructor presents the topic to be learned and divides students into small groups. Each student is responsible for reading and summarizing part of the information on the topic. The student will present the summary of the information to the small group. Each student's part is essential just like all pieces of a jigsaw puzzle are necessary for the complete picture. Each student gets to become a teacher and the workload is divided and conquered.

Active Learning Techniques

Technique	Description
Round Robin	Students are separated into small groups. Each student offers a prepared response to a specific question or problem. This continues until each student in the group has had the opportunity to share. On the second time around, each student has 2 minutes to rebut or accept others' ideas.
Snowball	Students respond to a discussion partner in pairs (using breakout rooms, chat function, or shared document for online). Then, the pair joins another pair, creating a group of four and share their responses. Next, groups of four join together to form groups of eight, and so on, until the whole class is joined up in one large discussion.
Buzz Groups	The learners are divided into small groups. These small groups meet for a short period to consider a simple question or problem. The ideas are then presented to other small groups or to the class.
Roleplay	Students explore realistic situations by interacting with other people in assumed roles and must make decisions and act as that role. Students immediately apply what they have learned and engage in a hands-on experience.
Pass-the-problem	Groups are given a question, prompt, or series of questions to solve together and record their responses. After all questions are answered, questions are passed to another group who repeat the process without looking at the first group's answer until they have reached a consensus.

Aligning Active Learning Techniques to Learning Objectives

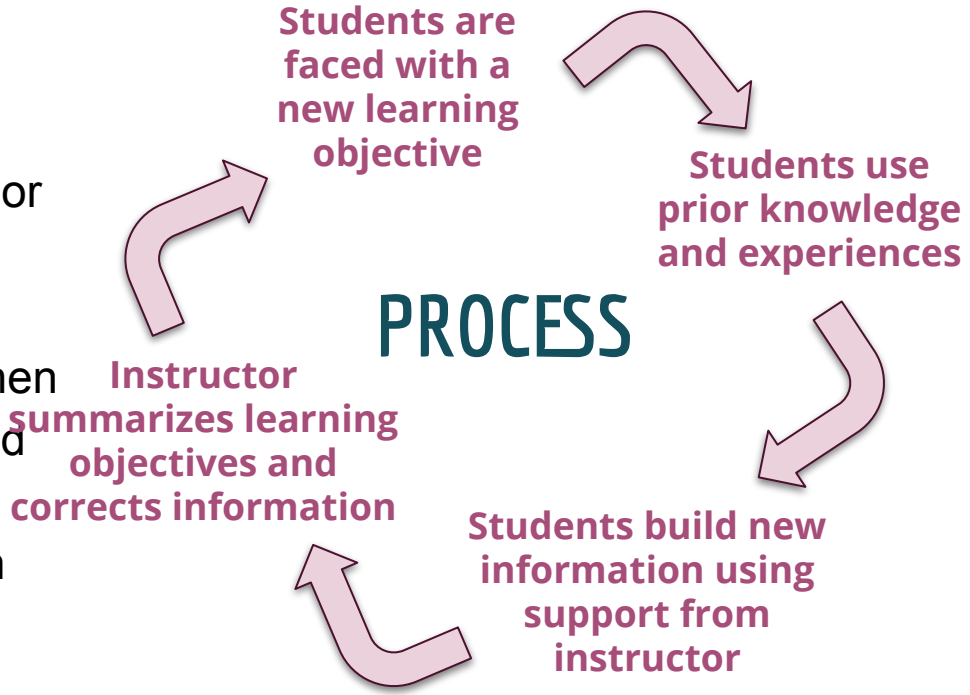
Gathering Ideas (*Reflect, organize, assemble, construct, relate, examine, etc.*)	**Understanding opposing opinions** (*Compare, contrast, debate, defend, critique, etc.*)	**Breaking down concepts** (*Evaluate, describe, formulate, differentiate, interpret, etc.*)
Jigsaw snowball Gala walk Round Robin Pass-the-problem Fishbowl Buzz Groups Pass-the-problem	Debate Gala walk Buzz groups Fishbowl Fishbowl role play Role Play Snowball round ronin	role play fish bowl debate buzz group jigsaw Pass the problem

Puzzle Piece 4 - How can we design impactful lessons using these strategies?

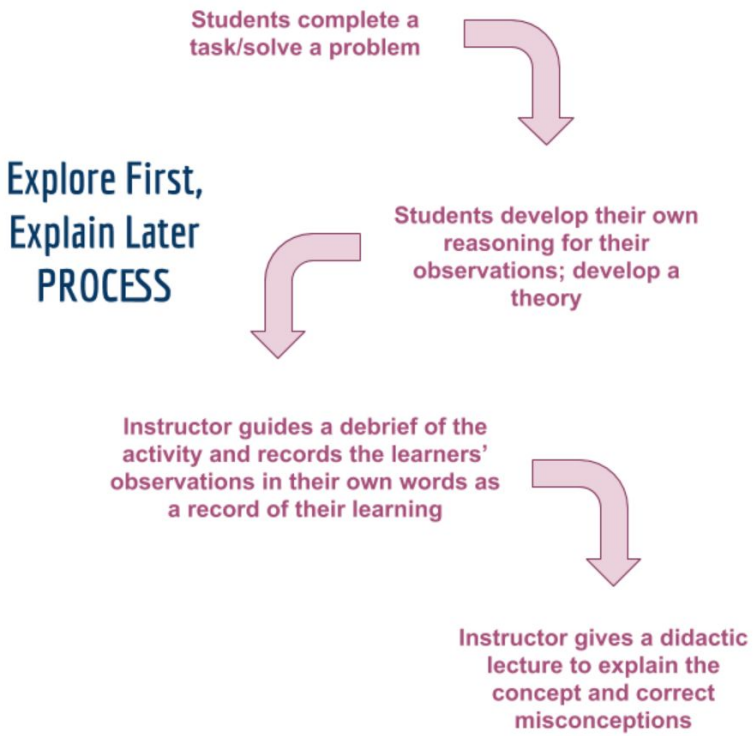
Constructing Knowledge

Definition:

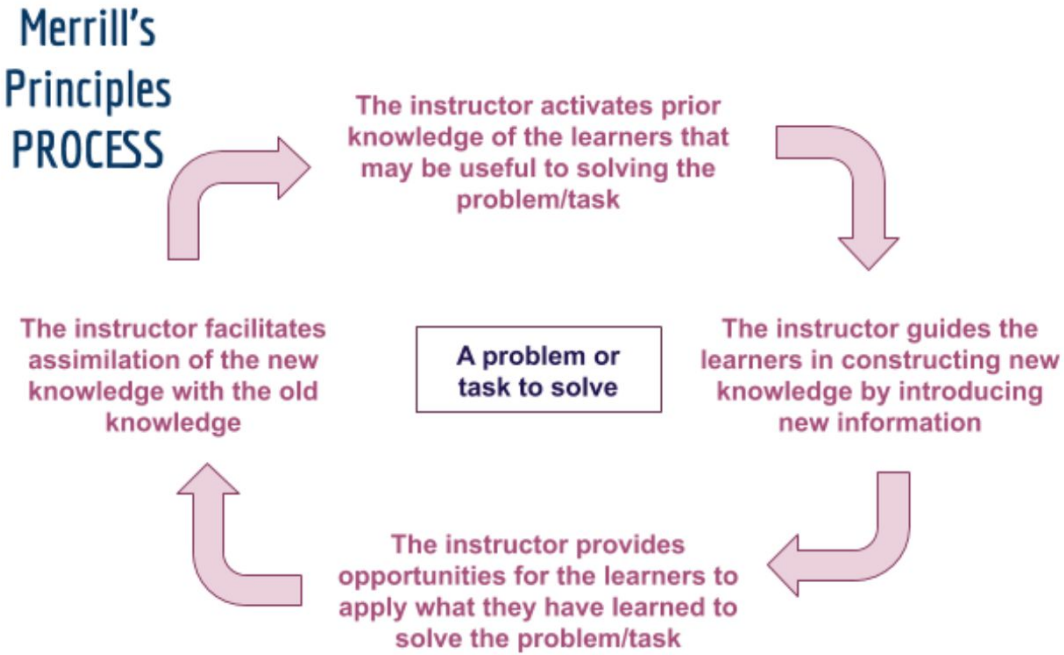
- leads to building and discovering something new that uses a learner's prior knowledge and experience to extend beyond what they know
- often collaborative; works effectively when many use their collective knowledge and experiences to work together
- learning through exploration rather than listening to an instructor
- a main goal of active learning



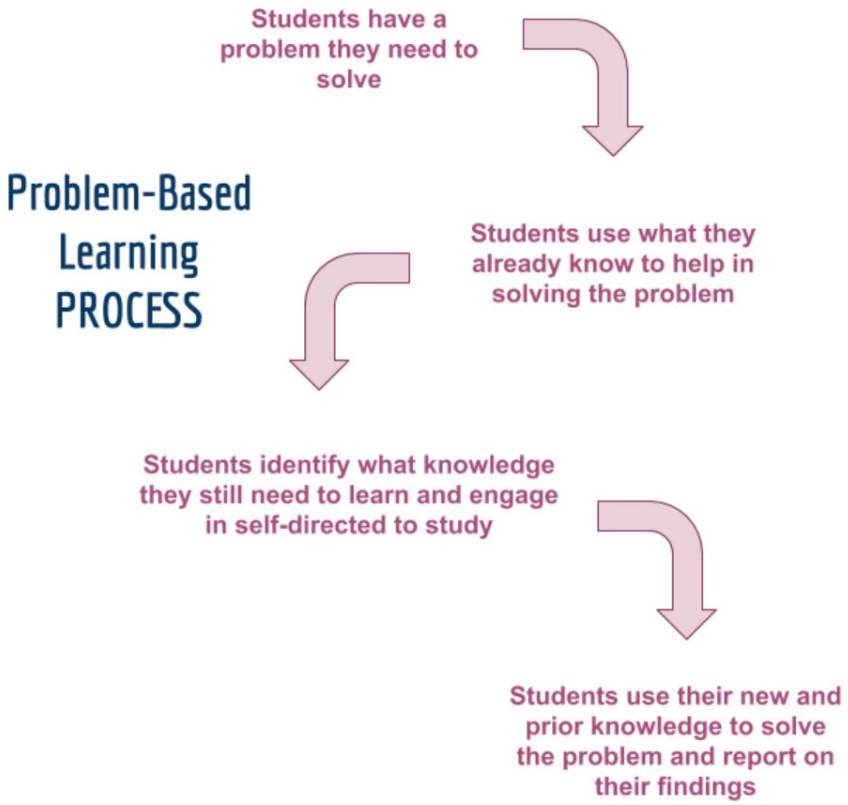
1. Explore first, explain later



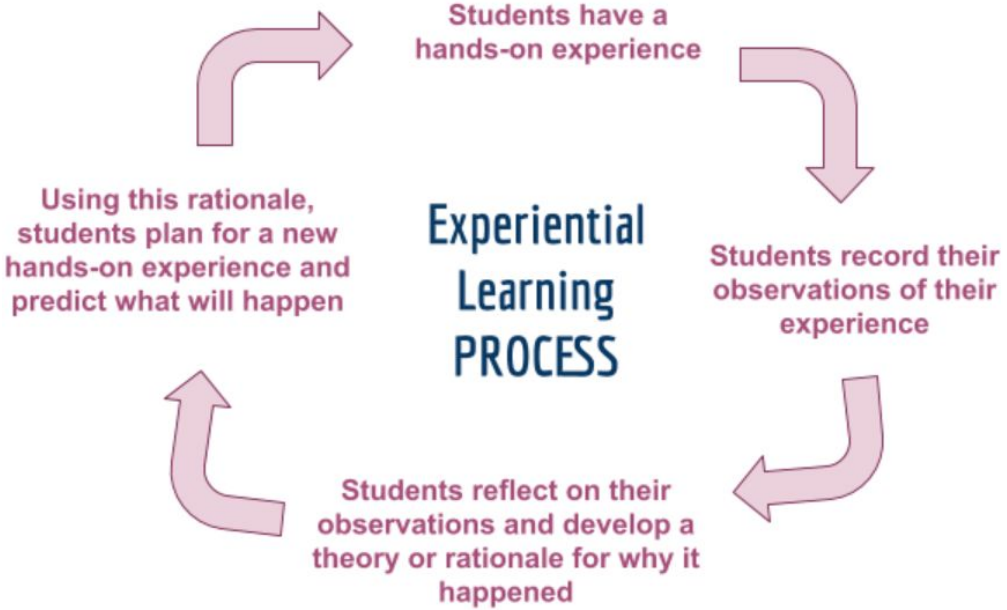
2. Merrill's Principles



3. Problem-based Learning



4. Experiential Learning



Assembling the Puzzle Pieces

Assembling the Puzzle Pieces

Instructions: In groups, you will learn more about one of these lesson planning frameworks:

- Each group will be assigned a framework
- You will work together to answer the corresponding reflective questions about the framework and come up with a short lesson (or series of lessons) example *(lesson topic will be given to you)* that assembles **all puzzle pieces**
    - You will consider how students learn best
    - You will consider how to consciously motivate your students
    - You use active learning strategies
    - You will organize your learning activities using a planning framework to allow your students to construct their own knowledge
- **You will have 20 minutes**

Assembling the Puzzle Pieces Summary

What do these knowledge construction frameworks have in common?

All frameworks have a pretty common theme - that is, helping and guiding the students to drive and direct the learning process - but each framework provides a different way to think about it. Carefully look at each framework through the lens of your own discipline and see what speaks to you most and what seems most applicable to your field.

Summary

- Identify different stages of learning and assess how to implement beneficial learning activities at all stages of the learning process. (Puzzle piece 1)
- Recognize barriers to student motivation, participation, and learning outcomes. (puzzle piece 2)
- Discover online teaching tools and develop strategies for designing online learning activities at specific stages of the learning process. (puzzle piece 3 and 4)
- Practice designing a student-centered, impactful online learning activity. (Assembling the puzzle)

intractive learning

Your Most Impactful Learning Experiences?

Share your experience by using the annotate tool.

The teacher made the class fascinating by teaching it as a story- also made what we were learning connected and relevant

The instructor used different techniques

The instructor was very friendly and kind

Practical experiences always attracted me

hands-on learning

An instructor tried to include our interests while talking about course material

Hide Tanning - physical learning along with cultural teachings - the 'DOING'

Lots of repetition - learned a technique and then had many chances to practice it

Having other students who were as engaged as I was with the material under

difficult and critical but engaging discussions

autobiographical inquiry experiences

community engaged learning experience

a really engaging discussion

When I gave a suggested interpretation of a passage

Respectful time of exploration

enthusiastic onlin

Literature Class, the teacher was very excited by and

Some does not like to have instructor in the lecture. Made me feel empowered.

for break activities

screenwriting class--teacher was always really enthused and genuinely cared about her students

experiential/applied learning

learning outside of the classroom

Pratical examples

All of my most impactful experiences were had when the instructor was

Suzana Espin...

Reflection

1. Can you identify Kolb’s and/or ZPD in this lesson?
2. How did we motivate you in this lesson?
3. What active learning strategies did we use?
4. Can you identify a knowledge construction framework in our lesson?