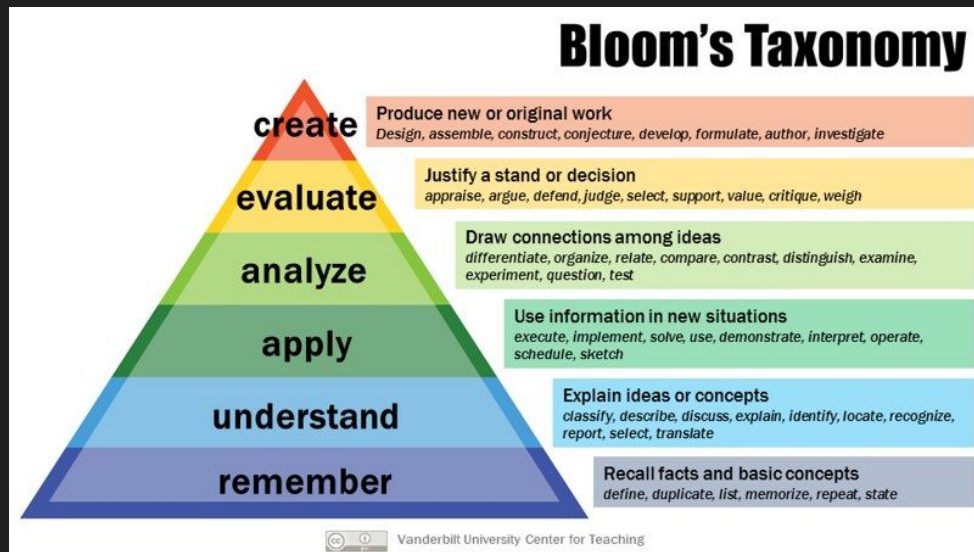
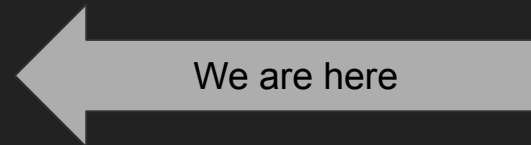

Learning Goal Brainwriting

- Learning Goals and Objectives
 - Day 1: Why Teach ALife?
- What do we want students to learn?
 - Learning Goals vs . Learning Objectives
- Exercise to allow collective development
 - Brainwriting (virtual variant)

Learning Goals for ALife



- Learning Goals: general
 - *Students will understand ____.*
- Learning Objectives: measurable
 - *Students will be able to ____.*



Learning Goals for ALife

Goal of next 1.5 hours:

- Come up with set(s) of **learning goals** for an artificial life class
- Ideally these goals will be applicable to **any level of class**
- **Could use this set as the foundation for an Artificial Life Journal publication, let us know if you are interested!**

“Learning goals are the **intended purposes** and desired achievements of a particular course” - Brown Center for Teaching and Learning

Brainwriting

- Used to help generate and iterate on ideas
- Avoid loudest voices dominating
- Traditionally done with notecards/paper

Virtual Brainwriting

- Still *generating* and *iterating* on ideas

Our Plan

- Concurrent work on virtual whiteboard (*Miro*)
- Part 1: Individual Phase - *grow ideas*
- Part 2: Group Phase - *harvest & cluster* best
- Part 3: Primary - *share core* goals

Accessing the Miro Board

To access the board, you will click a link. **NOT YET! :)**

It is shared on the [#brainwriting-learning-goals](#) channel

Groups - will also be listed on Miro Board

Group1 - Post Graduate Advanced Programming

Person1=
Person2=
Person3=
Person4=

Group2 - Undergrad HAS programming exp

Person1=
Person2=
Person3=
Person4=

Group3 - Undergrad HAS programming exp.

Person1=
Person2=
Person3=
Person4=

Group4 - Limited or No Programming Exp.

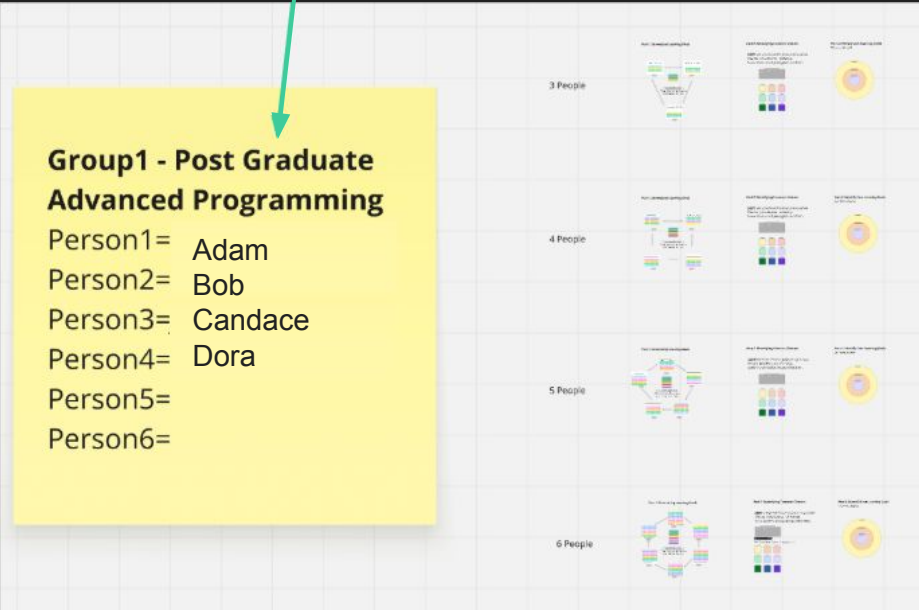
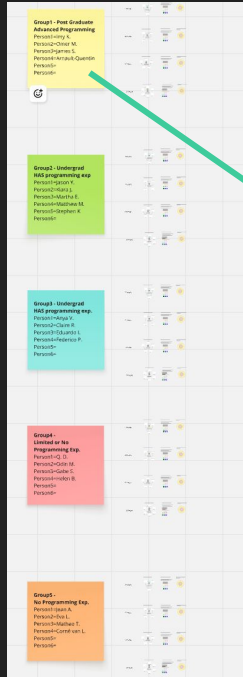
Person1=
Person2=
Person3=
Person4=

Group5 - No Programming Exp.

Person1=
Person2=
Person3=
Person4=

What you will see and do

This defines the level of the class and background of students.



What you will see and do

Group1 - Post Graduate Advanced Programming

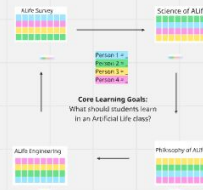
Person1= Adam
Person2= Bob
Person3= Candace
Person4= Dora
Person5=
Person6=



Pick the correct row for the number of people in your group.

4 People

Part 1: Generating Learning Goals

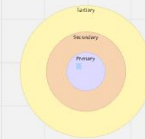


Part 2: Identifying Common Clusters

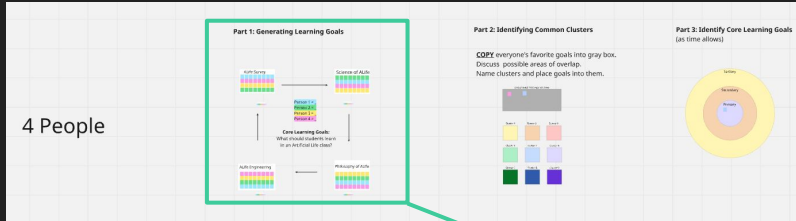
COPY everyone's favorite goals into gray box.
Discuss possible areas of overlap.
Name clusters and place goals into them.



Part 3: Identify Core Learning Goals (as time allows)



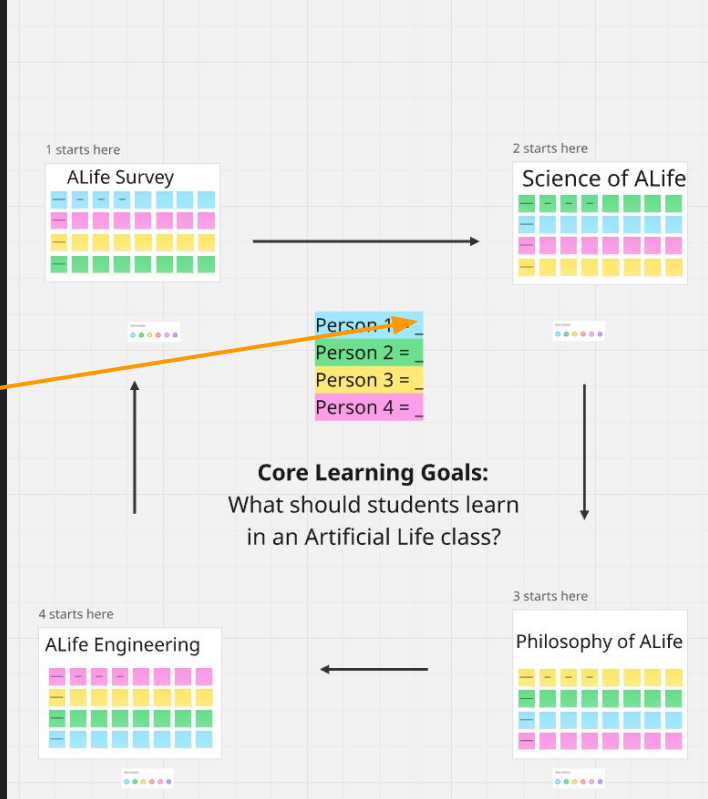
What you will see and do



Add your name next to Person #
based on the Person1= _____
From your group

This will be your color during the activity

Part 1: Generating Learning Goals



Person 1/2/3/4...

Your starting board

(1 starts here)

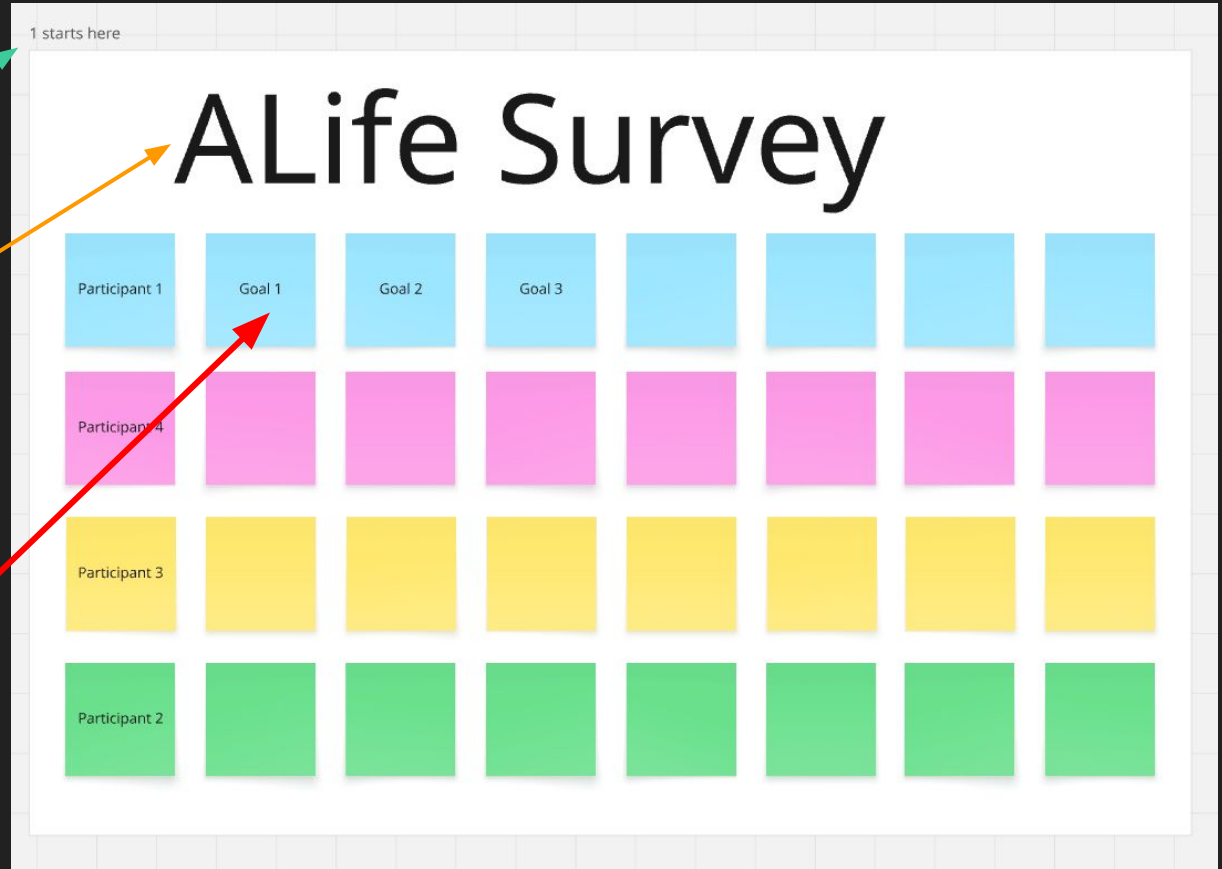
Will have the top row your color.

You will see the focus of the course

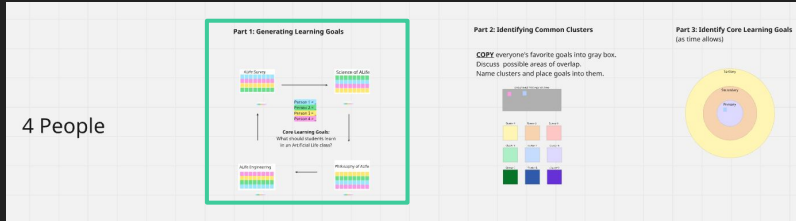
Once a timer starts:

List the most important learning goals on the “sticky notes”,
i.e. little colored squares

(you can do more than 3)

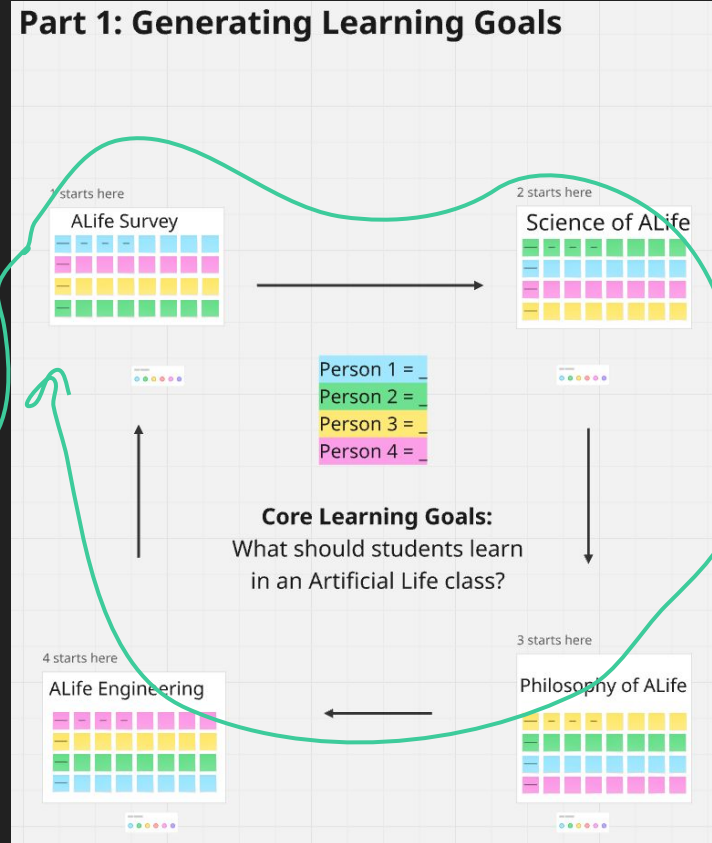


What you will see and do



After the timer is up, you will rotate based on **the arrow** from your starting board to the next board.

You will have time to build on the existing ideas (vertically down) or add new goals (add a column).



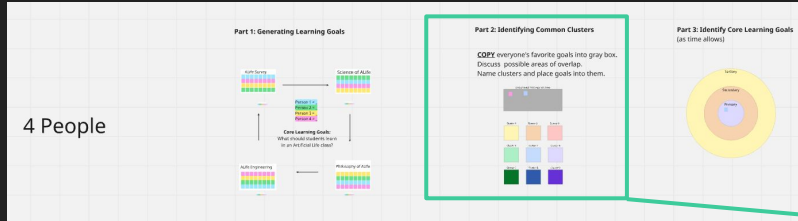
What you will see and do

Once everyone is done with the final round, go to each board and **vote with the dots** for what you think are the **most important learning goals** for each board (based on the focus of each class)

To vote, just **click and drag your colored dot** to choose what you think are the most critical learning goals.

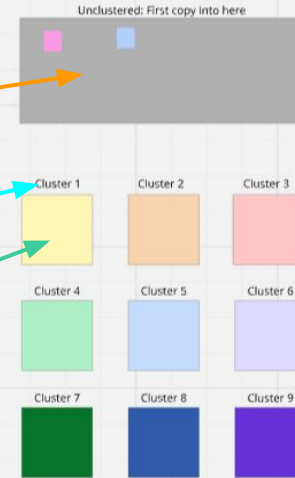
The screenshot displays the 'ALife Survey' interface. It features a large grid of colored squares (blue, pink, yellow, green) representing different learning goals. The grid is organized into rows and columns, with labels for 'Participant 1', 'Participant 4', 'Participant 3', and 'Participant 2'. The title 'ALife Survey' is prominently displayed at the top. A legend at the bottom right shows a row of colored dots (blue, green, yellow, red, pink, purple) labeled 'Dot voting'. An orange arrow points from the text 'click and drag your colored dot' to the legend. In the top right corner, there is a smaller diagram showing the flow of the survey process, including '1 starts here', '2 starts here', '3 starts here', and '4 starts here', leading to 'Core Learning Goals: What should students learn in an Artificial Life class?'.

What you will see and do



Part 2: Identifying Common Clusters

COPY everyone's favorite goals into gray box. Discuss possible areas of overlap. Name clusters and place goals into them.



Small Group Voice Channels

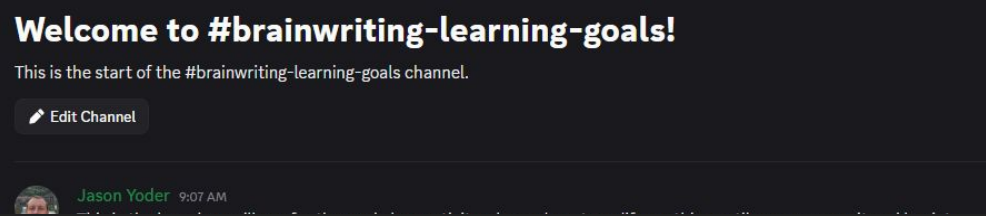
- Small Group Channel 1
- Small Group Channel 2
- Small Group Channel 3
- Small Group Channel 4
- Small Group Channel 5

Hop on the Small Group Voice Channels

Copy the “sticky notes” (colored squares) via clicking on one, using control+C, and then move over to **Part 2** and paste (control+V)

Drag around and try to find common clusters. If you find them, go ahead and label the cluster (e.g. rename **Cluster 1**) and **drag the sticky notes** into the box

Accessing the Miro Board



To access the board, you will visit the following Miro board.

It is shared on the [#brainwriting-learning-goals](#) channel

You can post questions to [#brainwriting-learning-goals](#)

Please [give/recieve help](#) your group by joining the corresponding Small Group Channel with your Group # (i.e. [Group 1](#) uses [Small Group Channel #1](#))

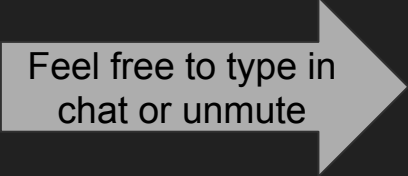


Coalescing Clusters

Common clusters:

- Philosophy of alife
 - “Mindset”
 - Ethics
 - Definitions
- Methodology/Techniques of alife
 - Soft/wet/hard/art
 - How to do it generally
 - How to conduct scientific experiment with one of the techniques
- Practical use/value of alife
 - When has it been useful to other fields
 - How to recognize that it could be useful?
 - How to communicate useful results back out to other fields
- History of the field

ALife Learning Goals



Feel free to type in
chat or unmute

It's not an "ALife" class unless students learn:

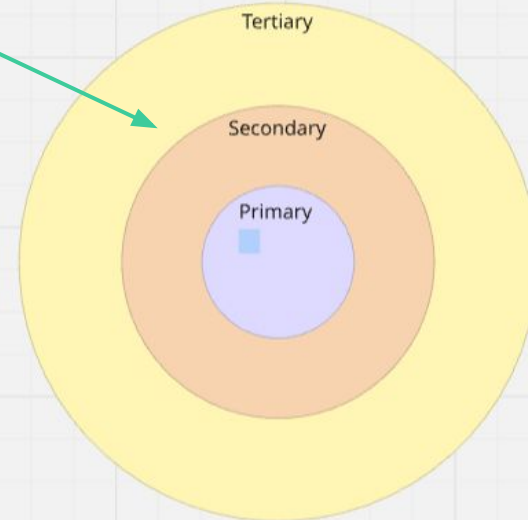
1. What "life" is and therefore what alife is "Domain"
 - a. Hard/soft/wet/art
 - b. Current open questions and goals in the field
 - c. (Brief) History of the field and its relationship to other fields
2. How to think about bottom up versus top down/emergence/simple rules/abstract "Mindset"
 - a. How to formalize a problem, figure out what is important in the system
 - b. How to think about/ask "what if" question, when you have total control of system
 - c. Making sure not to have guaranteed the outcome via your rules
3. How to actually create something that is an alife model/technique "Methodology"
 - a. How to "do" alife
4. How has/can alife solve a problem/answer a question in another field "Rigour"
 - a. What are alife's strengths and weaknesses
 - b. Building alife skillset (learn about several frameworks)

Coalescing Goals

“It wouldn’t be an ALife class if it didn’t have this”



Part 3: Identify Core Learning Goals (as time allows)



Now:

- Come up with learning goals from the clusters and place them into a position within core learning goals.
- The most important in the center and moving outward.
- Ideally this will be for any/all ALife courses, but you can pick a specific type of ALife class as a group and add a textbox to describe that.