Peter Newbury | Centre for Teaching and Learning | peter.newbury@ubc.ca
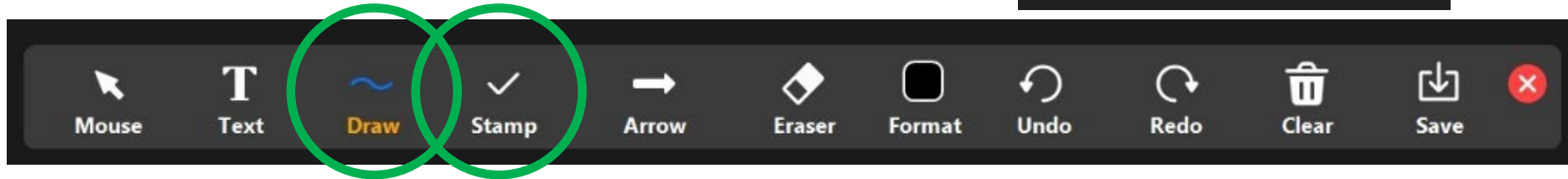**Michelle Lamberson** | Office of the Provost | michelle.lamberson@ubc.ca
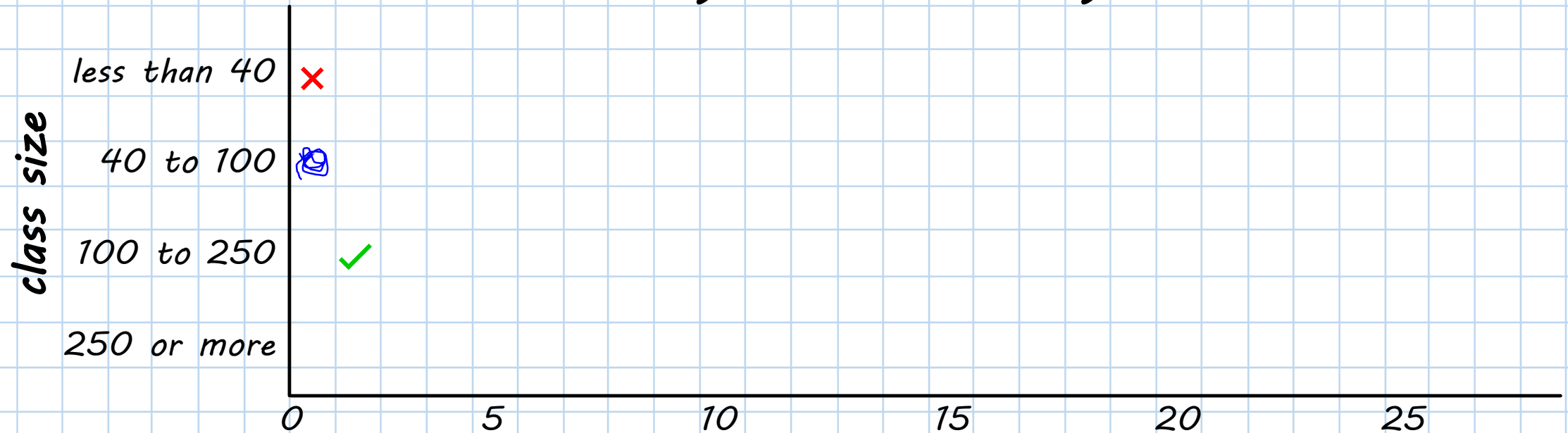
now

Fall

I-74 bridge in Bettendorf, Iowa (shared by farragutful on Wikimedia Commons, CC-BY-SA)

Mouse   Text   Draw   Stamp   Arrow   Eraser   Format   Undo   Redo   Clear   Save

How many students are in your class?

class size

less than 40   ✗

40 to 100

100 to 250   ✓

250 or more
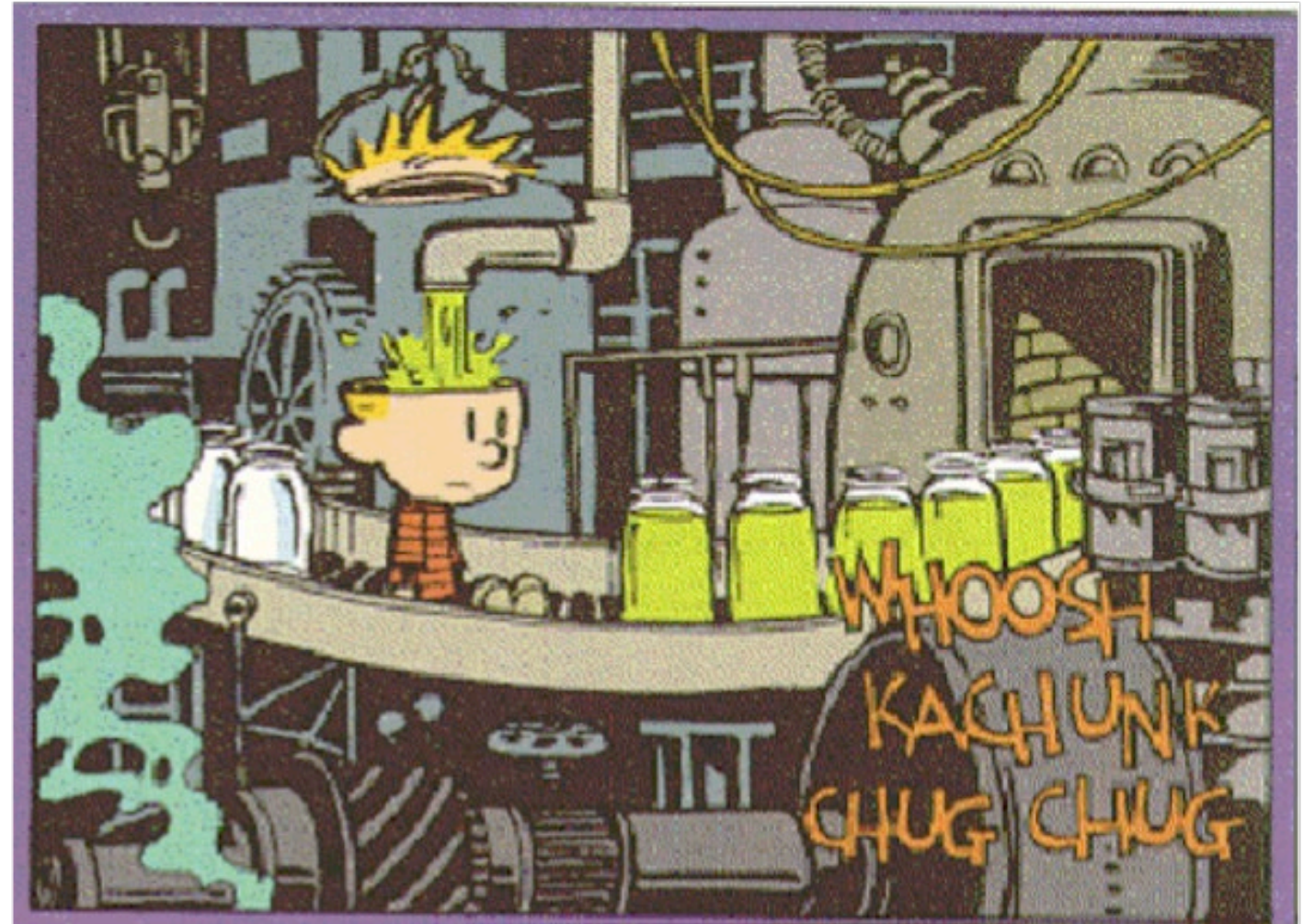
0   5   10   15   20   25

Transmission model of learning

proven to be less effective than active learning (Freeman et al. 2014)
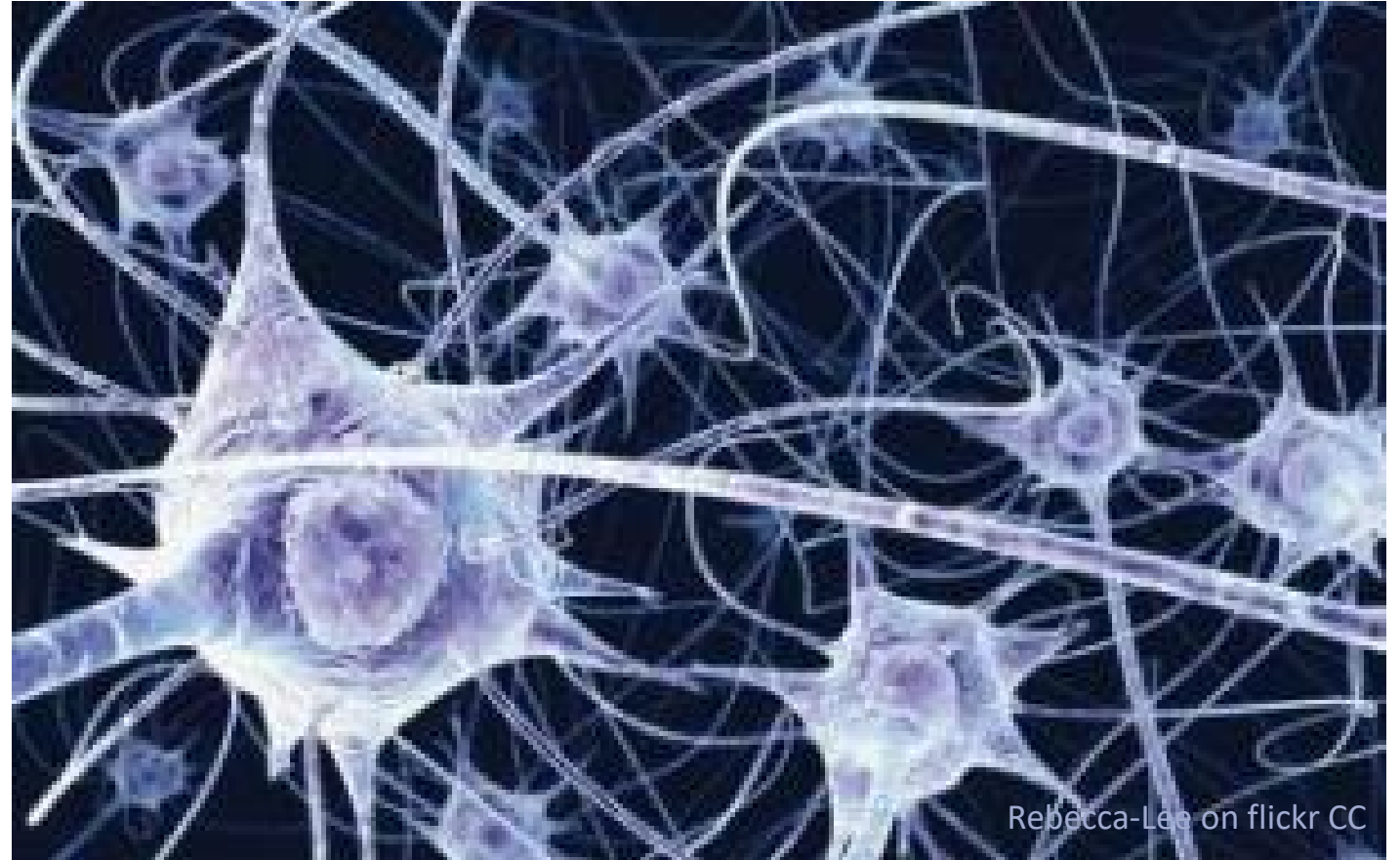
see also

info deficit model

Constructivist model of learning

New learning is based on knowledge you already have.

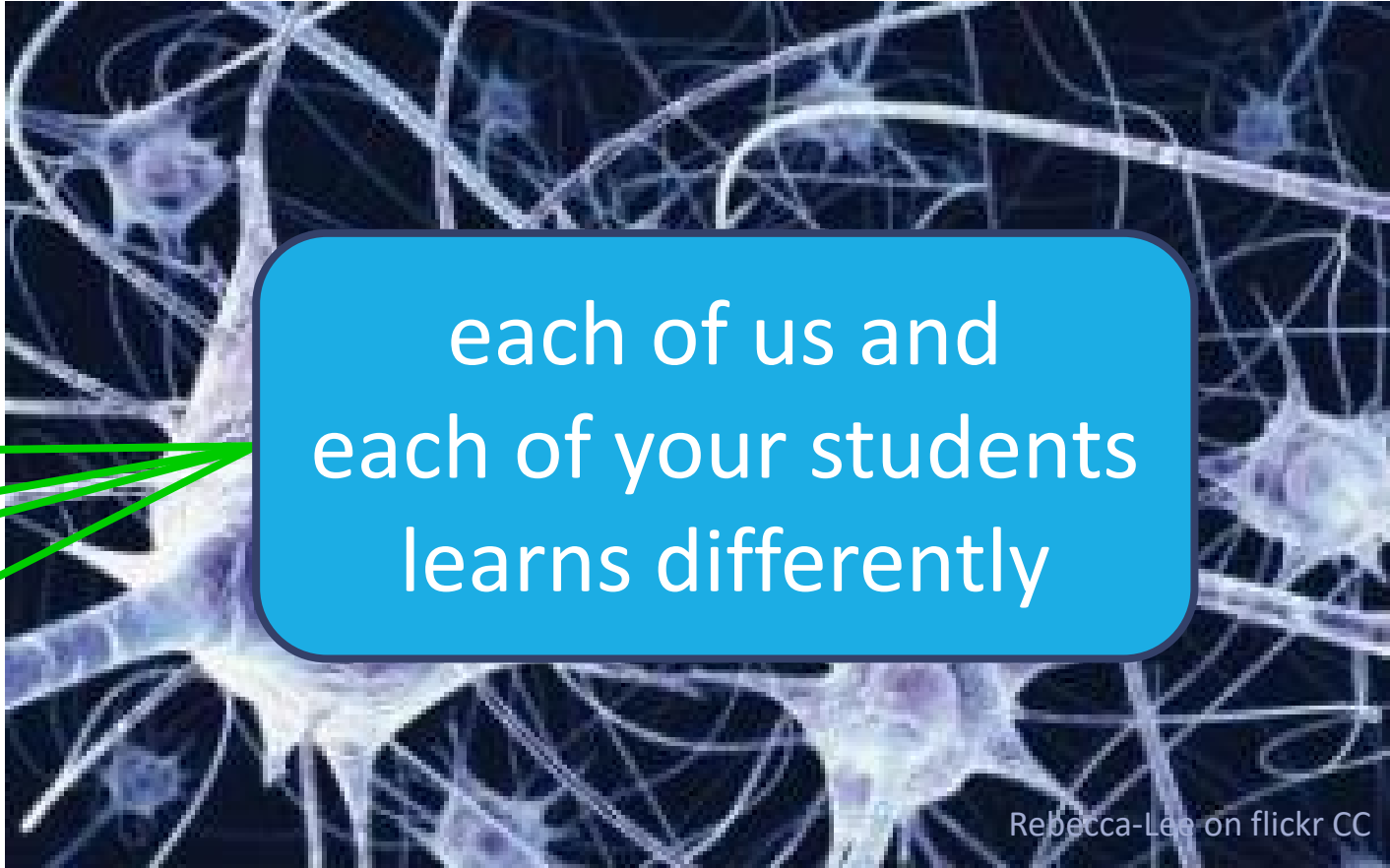You store things in your long term memory by building connections with your existing memories.

Rebecca-Lee on flickr CC

Constructivist model of learning

New learning is based on knowledge you already have.

You store things in your long term memory by building connections with your existing memories.

each of us and
each of your students
learns differently

Rebecca-Lee on flickr CC
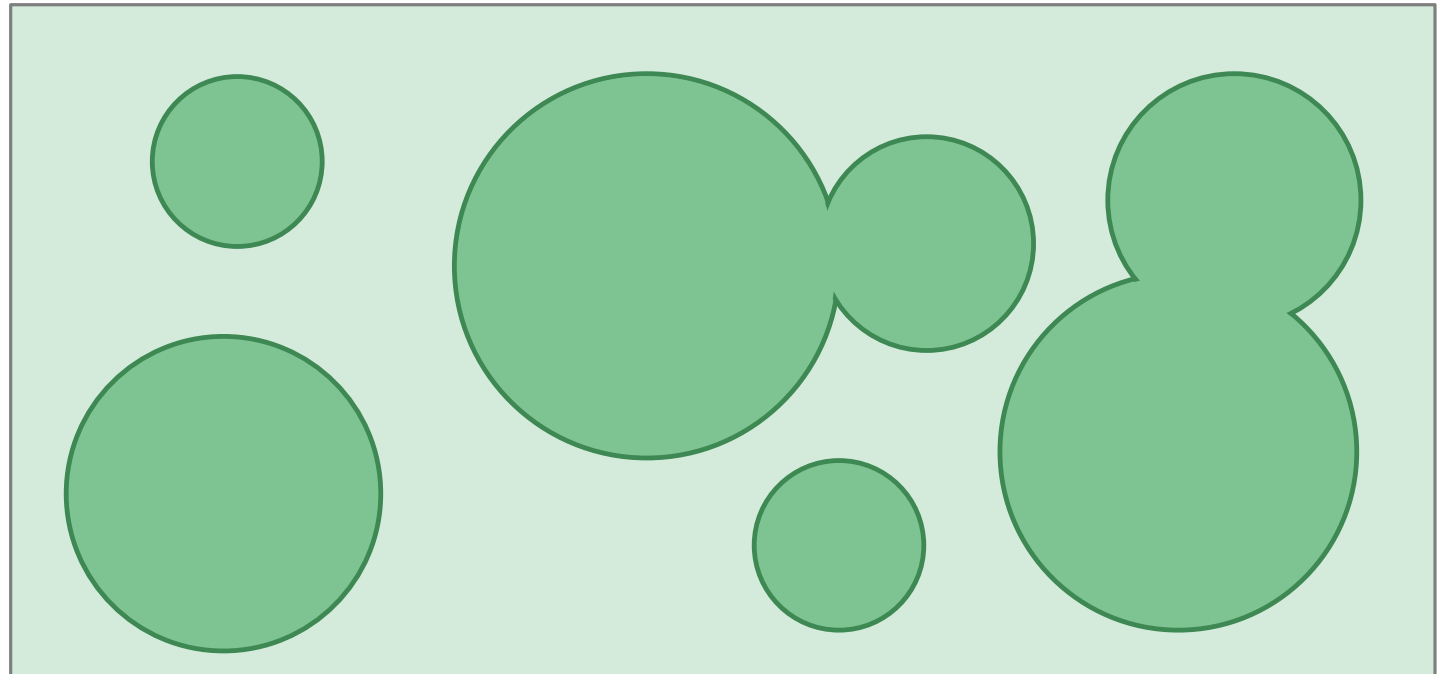
Social Constructivist model of learning

knowledge is co-constructed

learning happens with the assistance of others

(Vygotsky, 1962)

Zone of Proximal Development:

Range of tasks that are too difficult for an individual to master alone, but can be mastered with the assistance or guidance of adults or more-skilled peers. (Vygotsky, 1962)

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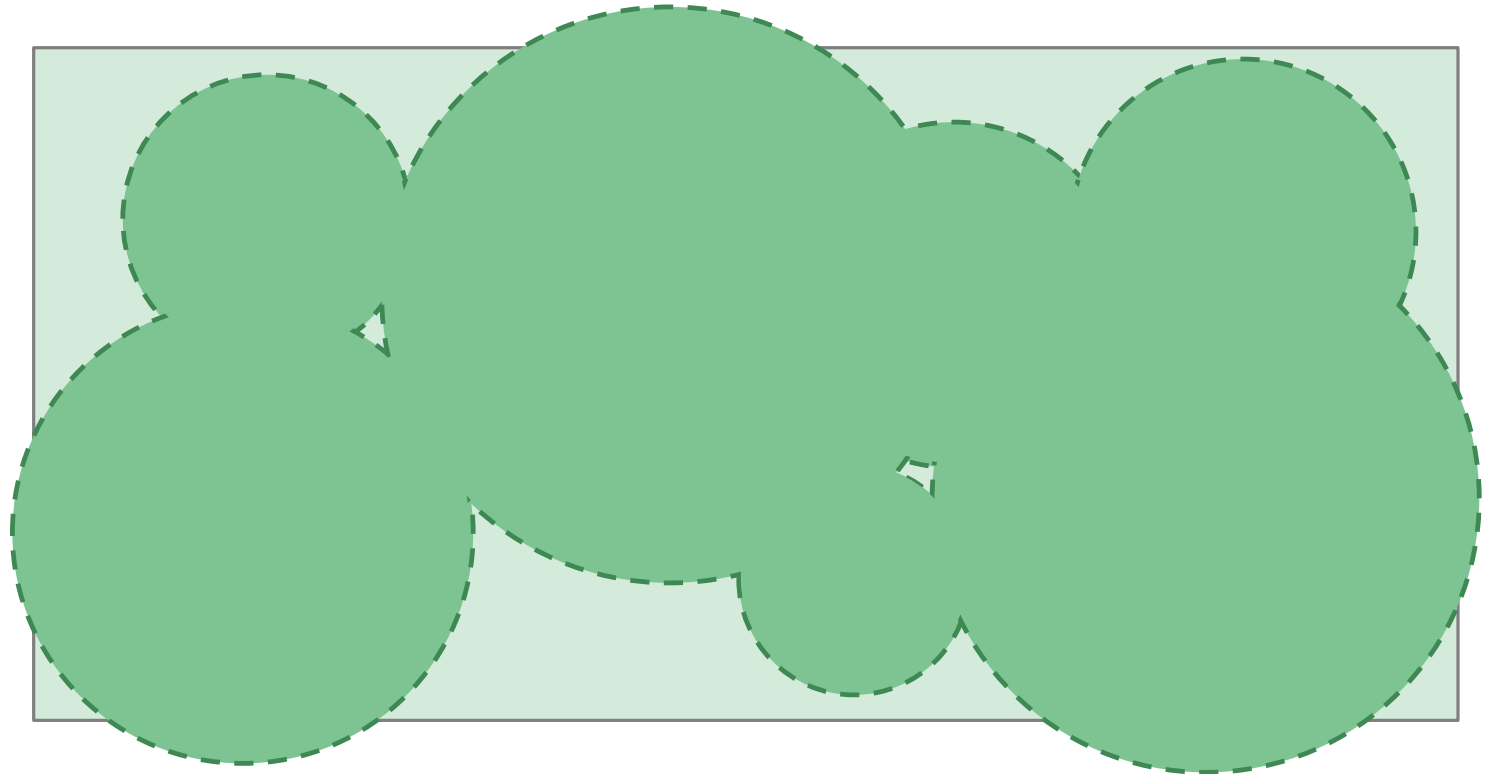
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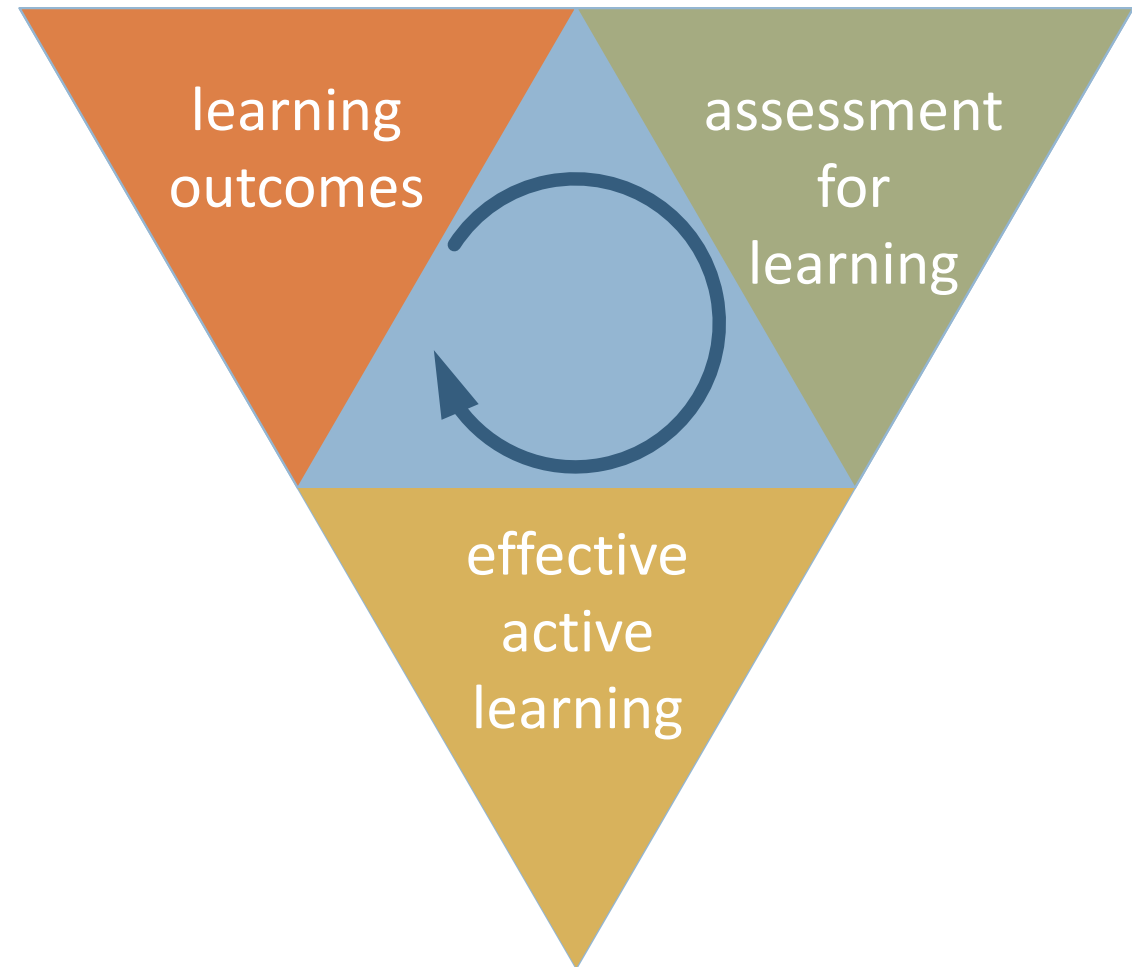
In the classroom and especially online, we need to provide **structure** for every student to **safely** collaborate, contribute, and co-construct their knowledge.

Design Challenge

Create lessons where students connect with concepts and co-create new knowledge
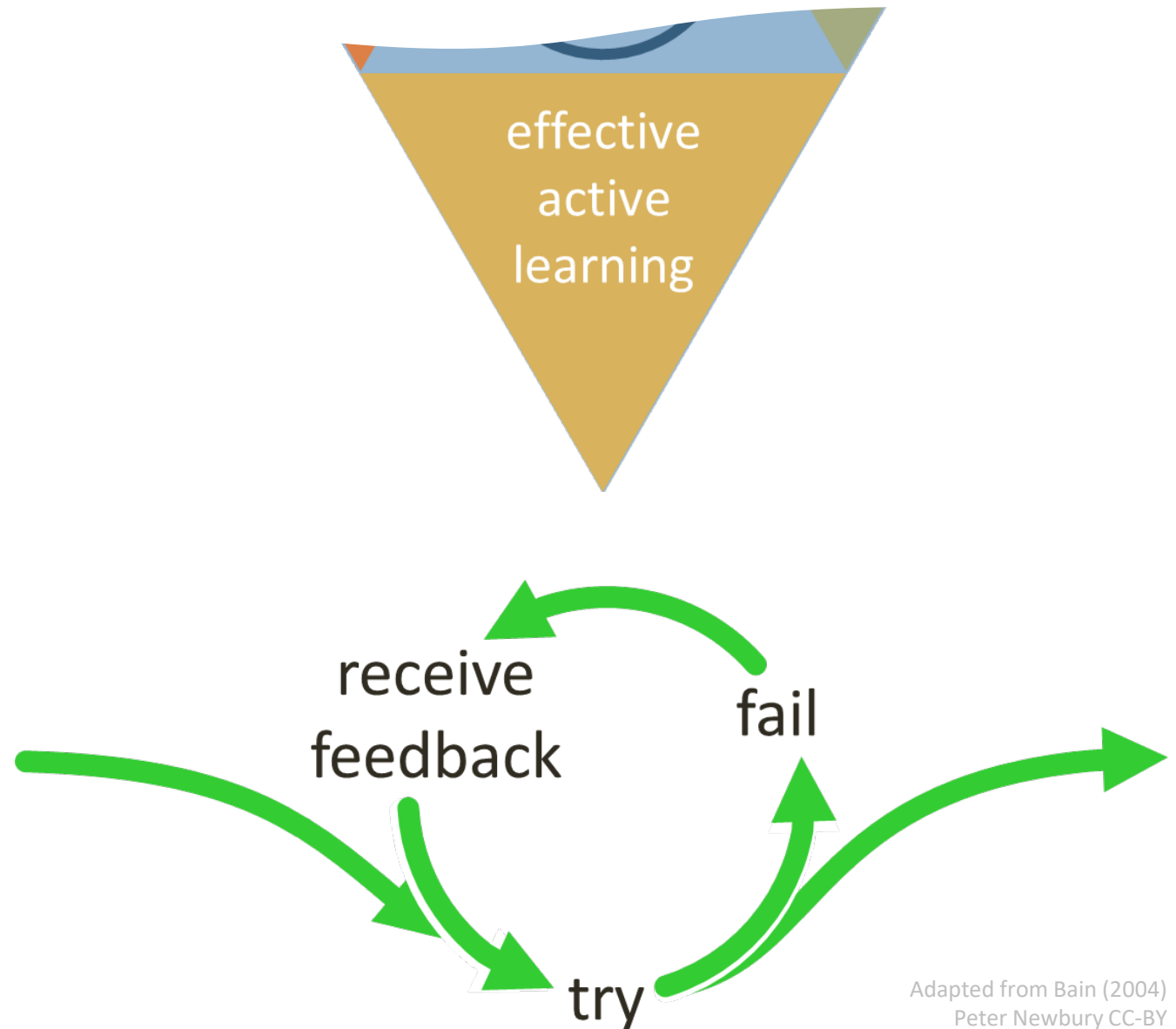
Solution

Backward design

learning outcomes

assessment for learning
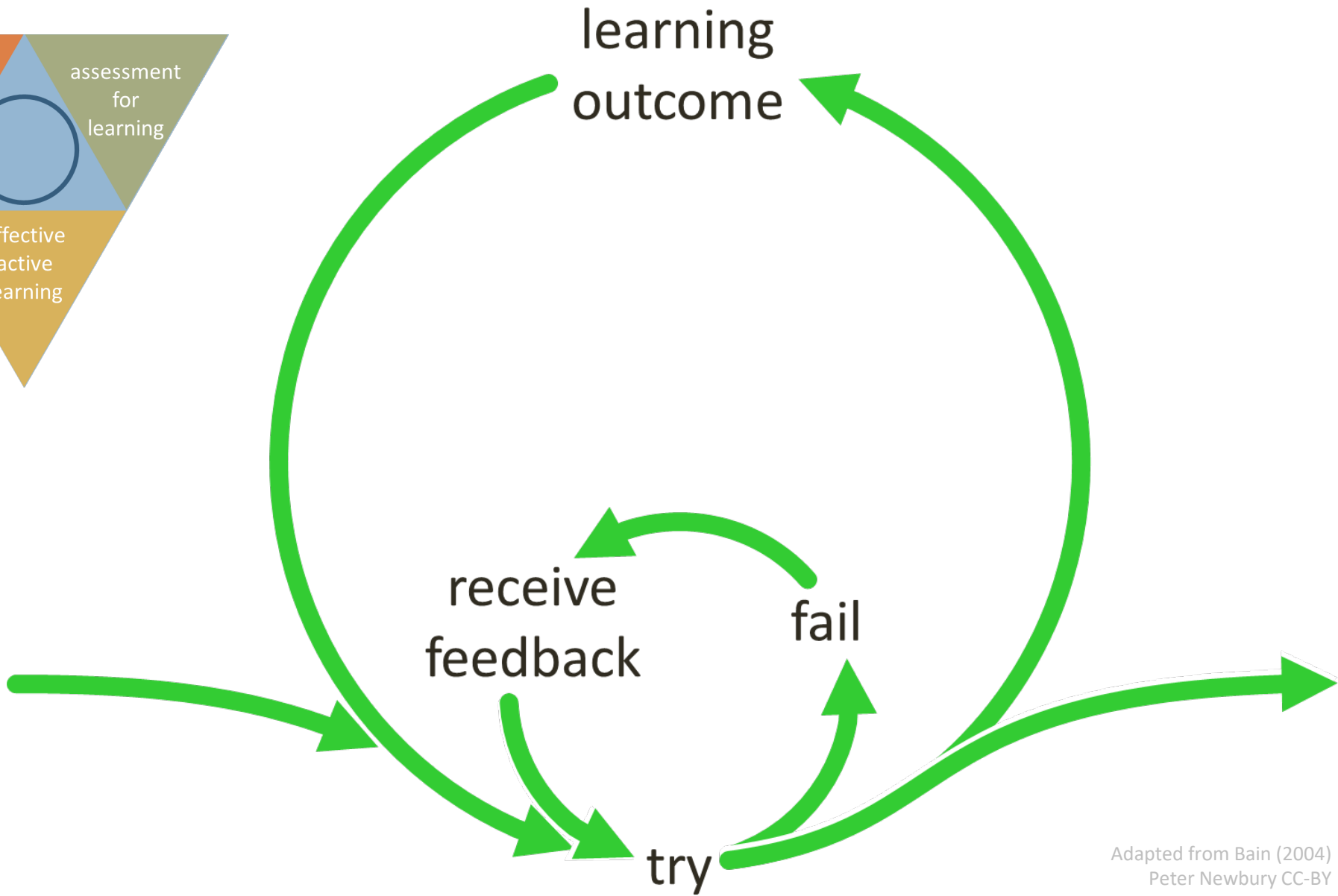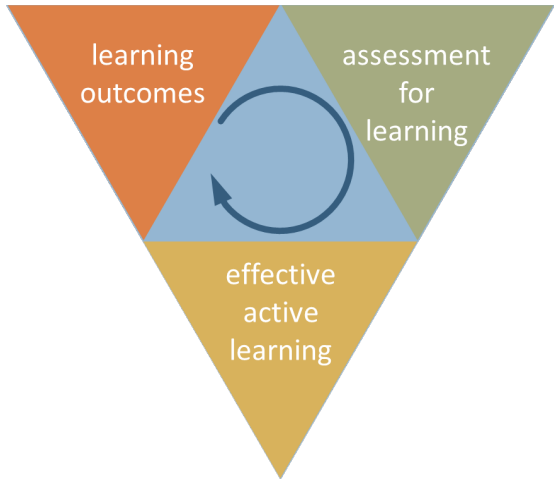
effective active learning

(Wieman)

effective active learning

"students encounter safe yet challenging conditions in which they can **try, fail, receive feedback**, and **try again** without facing a summative evaluation."
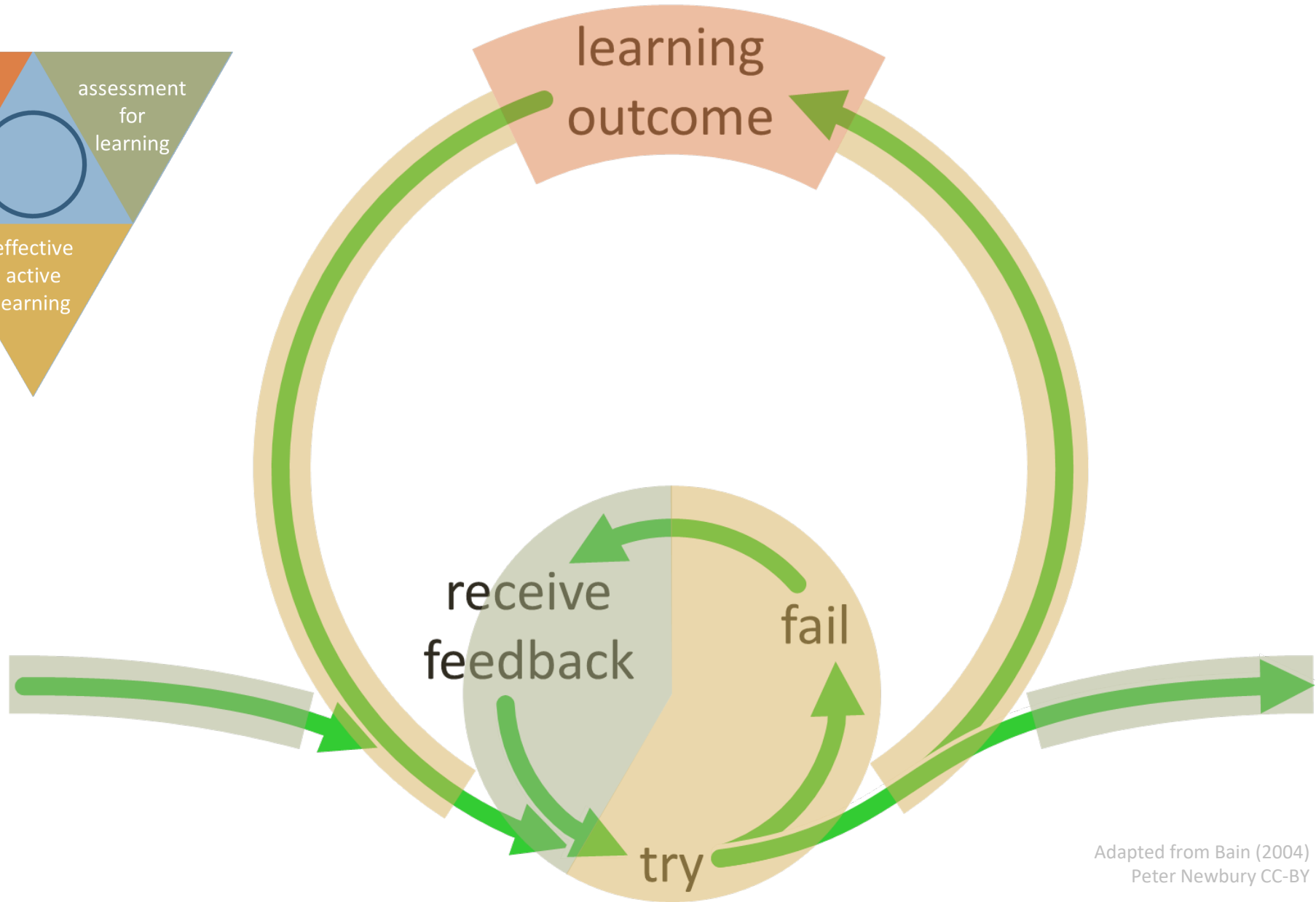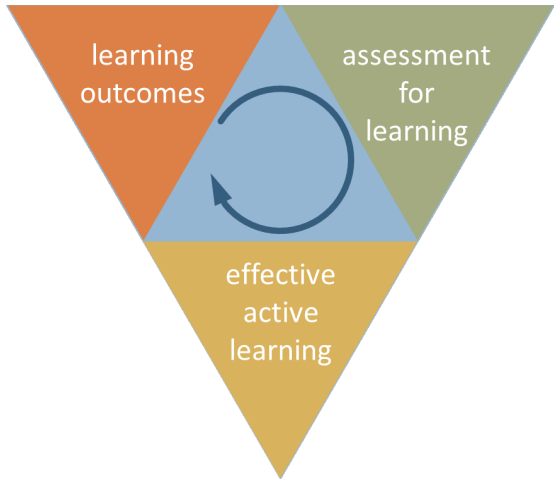
(Bain, 2004)

effective active learning

receive feedback

fail

try

learning
outcome

receive
feedback

fail

try

learning
outcomes

assessment
for
learning

effective
active
learning

learning outcomes

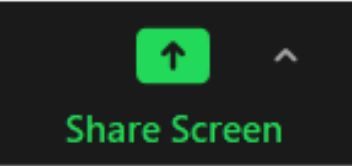assessment for learning

effective active learning

learning outcome

receive feedback

fail

try

Adapted from Bain (2004)
Peter Newbury CC-BY

breakout rooms

1. Copy the link I'm posting in the Chat Window

2. Open a browser window, paste the link, and view my Google slides

3. Join your breakout room

4. One person in your breakout room: please share your browser (either the window or your screen)

5. Use the Annotate tools to work together to complete tasks on Slide 2

We'll return to the Main Room in about 10 minutes – watch for a message.

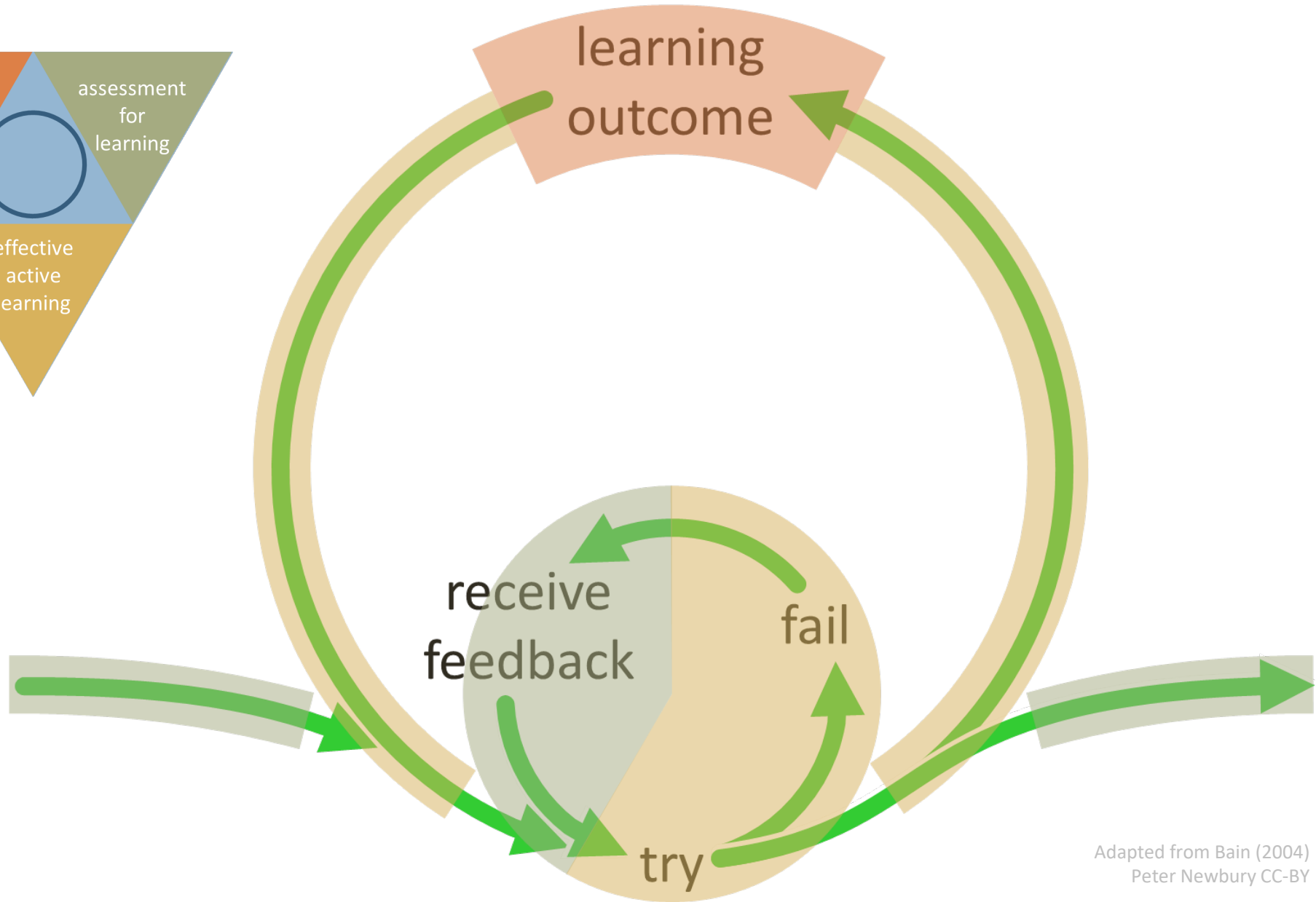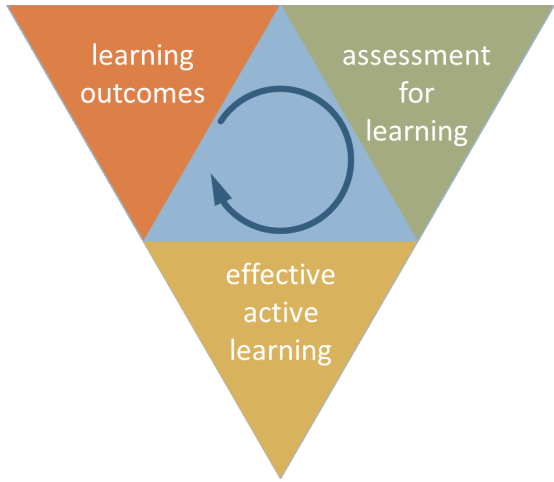1. What are these data showing? Make up axes and a title.
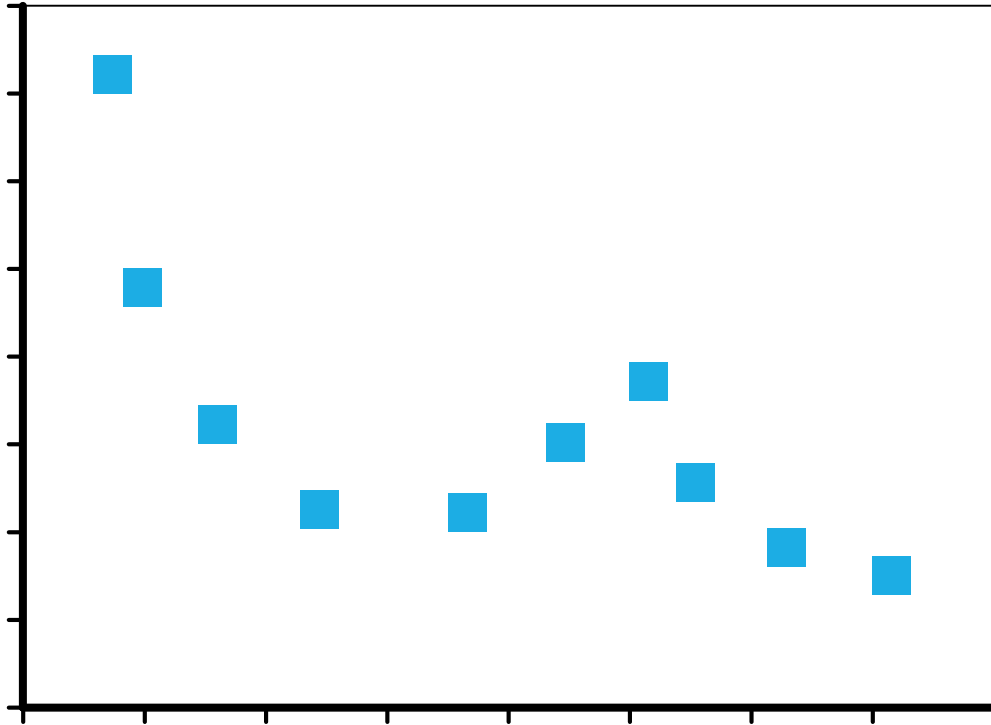
2. What are you feeling confident about for the Fall Term?

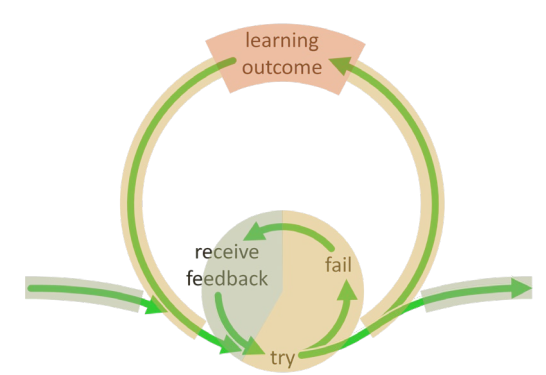3. What are you feeling anxious about?

What are you feeling confident about for the Fall Term?

What are you feeling anxious about?

learning outcomes

assessment for learning

effective active learning

learning outcome

receive feedback

fail

try

Adapted from Bain (2004)
Peter Newbury CC-BY

Model for synchronous class

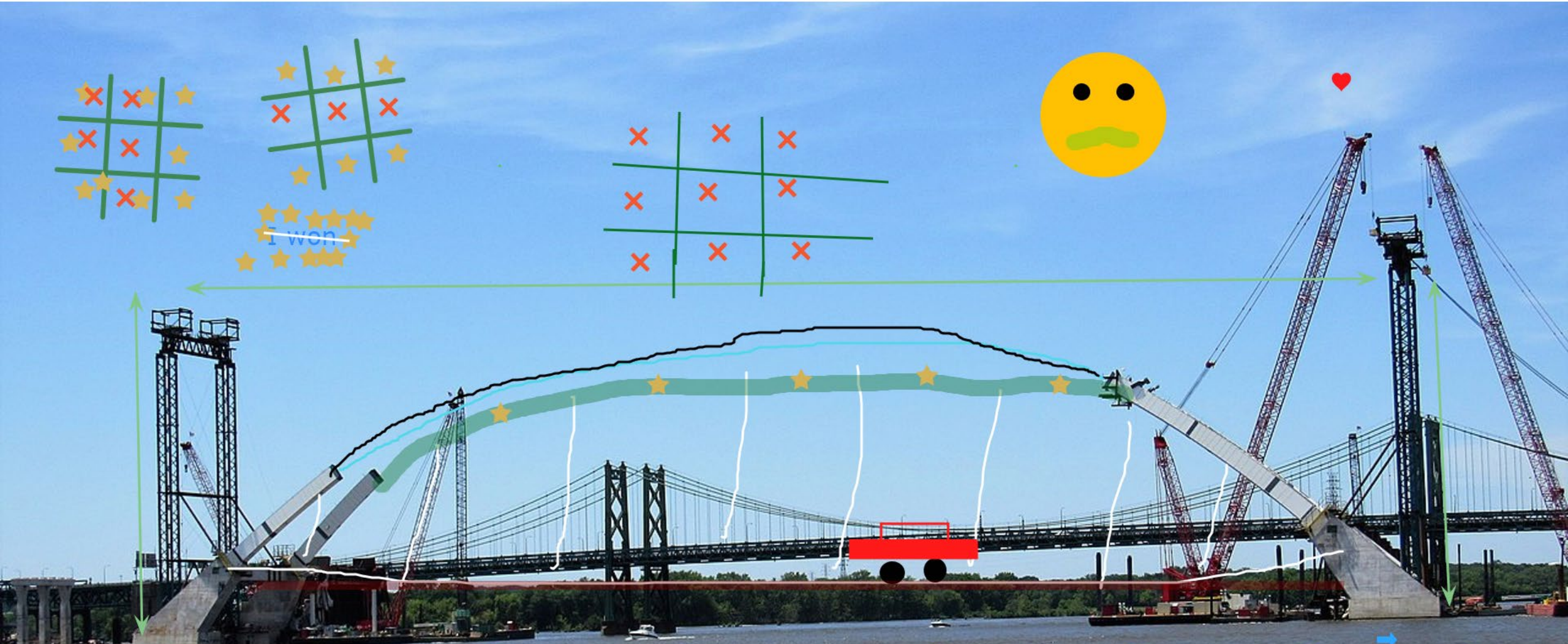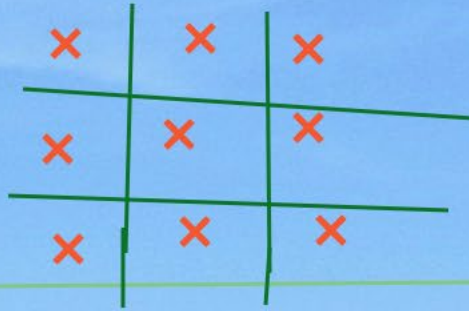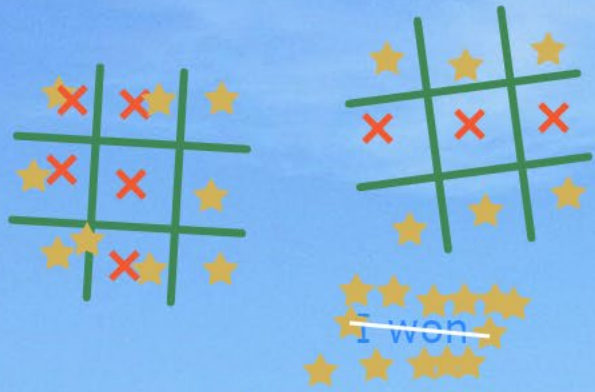| pre-class preparation	reading quiz	mini lecture	breakout groups	mini lecture	breakout groups	mini lecture	homework
Canvas module with guided readings and videos Canvas quiz		"live" lesson in zoom or Ultra • ppt slides • pdf • annotate from tablet	active practice with structure • collab. task • roles • report peer instructn w clickers	"live" lesson in zoom or Ultra • ppt slides • pdf • annotate from tablet	active practice with structure • collab. task • roles • report peer instructn w clickers	"live" lesson in zoom or Ultra • ppt slides • pdf • annotate from tablet	Canvas assignment discussion posts

Model for asynchronous class
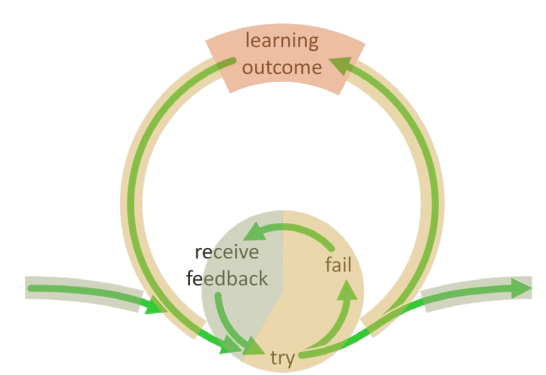
pre-class preparation	reading quiz	mini lecture	breakout groups	mini lecture	breakout groups	homework
Canvas module with guided readings and videos Canvas quiz		Short videos, one topic per video • Kaltura Capture • Camtasia	Simulations, Canvas quizzes H5P, WeBWork students meet in • Ultra • zoom • Slack • discussion boards	Extended guided readings, more short videos	Simulations, Canvas quizzes H5P, WeBWork students meet in • Ultra • zoom • Slack • discussion boards	Canvas assignment discussion posts
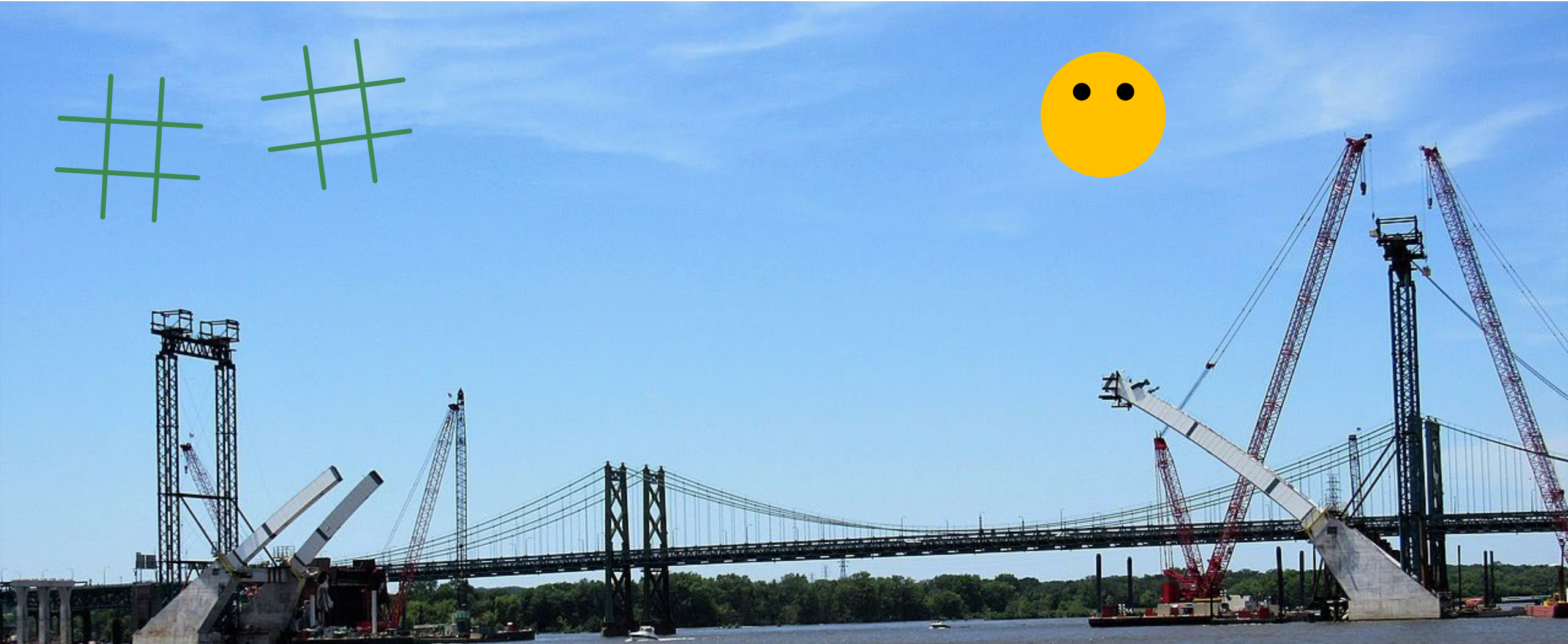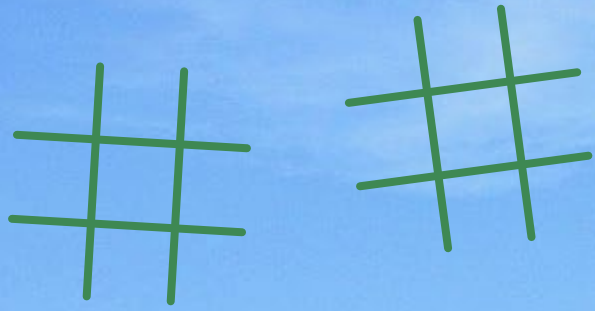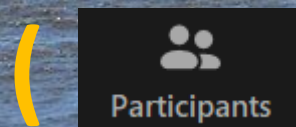
What questions do you have for us?
(Participants > raise your hand or use the Chat)

What questions do you have for us?
([Participants] > raise your hand or use the Chat)