



Active Learning Methods for eLearning and Online Instruction

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Introductions


Name

Institution

Format You Teach In

Why My Session



What have you
Learned?



Objectives

1. Recall at least 3 active learning strategies that can be used in online (and residence) courses
2. Interpret the use of 2 of these strategies into your own experiences or courses
3. Construct ways to use at least 1 new strategy in your course or instructional design.
4. Reflect on your own practice to identify areas in which active learning could be used, and identifying strategies already being used that can be built upon

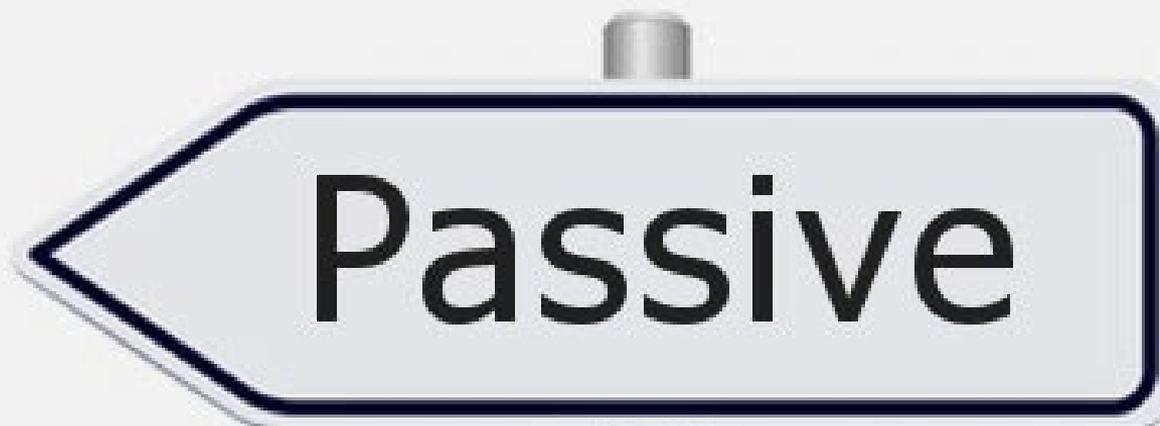
Discussion

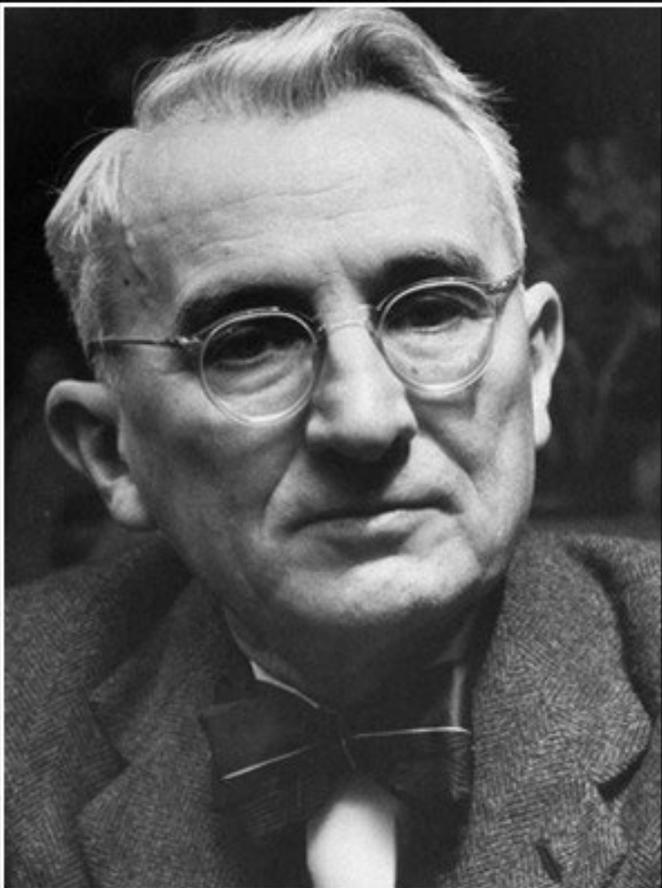
KWL:

- What do you **know** about Active Learning?
- What do you **want** to know?
 - What have you **learned** ?

Defining Active Learning

- Active learning is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing” (Prince, 2004).
- The method uses techniques and activities that promote analysis, synthesis, and evaluation that guide students towards achieving learning objectives.
- These techniques and activities are based on ideas about how people learn and engage regardless of content discipline.





Learning is an active process. We learn by doing.. Only knowledge that is used sticks in your mind.

— Dale Carnegie —

AZ QUOTES



... I don't know very much about yet.



... I am actively skeptical about using.



... I know about but do not use.



... I'm using a little.



... I'm already using extensively.

25 Strategy Stations



- Mind Mapping
- Games and Interactions
- Discussions
- Peer Review
- Fish Bowl
- Reflection
- Minute Paper
- Polling
- Video Vignettes
- Socratic Questioning
- Exit Tickets
- Word Clouds
- Jigsaw
- Think-Pair-Share
- Problem-based Learning
- Total Physical Response
- Flipped Learning
- Role Playing
- Scavenger Hunts
- Peer Teaching
- Demonstration
- Ice Breakers
- Field Trips
- Case Studies
- Infographics

Move with the Bell



4-5 minutes

Mind Mapping & Online

Best used in: F2F

Definition: Allows for simple concept mapping and brainstorming

Advantages

Improves critical thinking, reading and writing skills, Increases creativity and productivity

Makes connections between ideas

Personalizable

Condenses lots of information

Disadvantages

Not useful for large chunks of text

Time consuming

Difficult to share with other students

Games/Interactions On line

Best used in: Blended &

Definition: creates a game -like scenarios around course curriculum and objectives

Advantages

- Provides high levels of engagement and motivation
- Offers immediate feedback, clear goals and challenges made to suit the students skill level

Disadvantages

- Can decrease student attention span
- Can be costly and time consuming to create and use
- A link to assessments must be made to be relevant to classwork

Discussion & On line

Best used in: F2F

Definition: promotes conversational modes of learning

Advantages

Students can participate at a time and place that suits them.

Encourages reflection, deep and big picture thinking.

Can reduce the amount of time the teacher has to give to telephone and face-to-face meetings and time in the office.

Effective and efficient means to make whole class communication.

Disadvantages

Requires consistent input from teacher

Students lose motivation to participate unless they perceive 'value' in the discussion.

Nonlinear branching structure of online discussion may be insufficient

Needs to be moderated and monitored for inappropriate comments or postings

Peer Review & On line

Best used in: F2F

Definition: Students individually assess each other's contribution using a predetermined list of criteria.

Advantages

- Encourages student involvement and responsibility.
- Encourages students to reflect on their role and contribution to the process of the group work.
- Focuses on the development of student's judgment skills.
- Can help reduce the 'free rider' problem as students are aware that their contribution will be graded by their peers.

Disadvantages

- The process has a degree of risk with respect to reliability of grades as peer pressure to apply elevated grades or friendships may influence the assessment, though this can be reduced if students can submit their assessments independent of the group.
- At the other extreme students may be discriminated against if students 'gang up' against one group member.

Fish Bowl

F2F & Online

Best used in:

Definition: a number of students engage in a discussion while other students observe and write a response.

Advantages

Suitable for large groups, can work in small groups too.

Encourages participation

Teaches observation, listening, and community building

Disadvantages

Introverted students may not want to participate

Observers might have a tough time not interrupting.

Reflection

F2F/Online

Best used in:

Definition: students stop to think about their learning

Advantages

Makes learning more meaningful for students

Connects new knowledge to existing paradigms

Disadvantages

When graded inappropriately can discourage students honesty.

There is not one right or wrong answer.

Some students have not had practice in reflecting.

Minute Paper Blended

Best used in: F2F or

Definition: Students write for one minute on a specific question in the content.

Advantages

Quick, formative or summative method of assessment

Provides rapid feedback to teacher on if the instruction was effective.

Good practice for student reflection

Disadvantages

Writing the most relevant questions can be tricky

Students can view as a pro forma exercise in polling.

Polling

F2F & Online

Best used in:

Definition: anonymous polling of students using clickers or cell phones.

Advantages

Allows for quick monitoring of student understanding before and after a lesson

Allows for students to self-monitor

Allows for feedback data to be kept and reused

Clickers or bring your own device.

Disadvantages

Some people limit use to attendance taking

Challenging to write engaging questions

Allows for unwanted answers and a sense of anonymity

Video Vignettes

F2F/Online

Best used in:

Definition: short (<3m) videos that show part of a lecture

Advantages

Captures storytelling, scenarios and examples well

Elevates student interest

Allows for quick review and detailed retelling of difficult concepts

Disadvantages

Creating video is labor intensive

Passive way of providing information

Has best practice technical and copyright considerations

Socratic Questioning

Best

used in: F2F

Definition: The instructor replaces lecture by questioning student, always asking the next question in a way that guides the conversation toward a learning outcome

Advantages

Encourages critical thinking by asking students to think for themselves.

Encourages dialogue

Encourages students to answer their own questions.

Used in all disciplines

Disadvantages

Is a practiced skill to know what the next guiding question is to ask.

The “dead question” is dreaded, when no one can or does answer.

Difficult to handle a diversity of answers

Exit Tickets

Best used in:

F2F/Online

Definition: a formative assessment tool that give teachers a way to assess how students understand the material

Advantages

Allows quick feedback that sustains making change to teaching methods on the fly

Points out gaps in mastery

Can be combined with polling.

Less writing than a minute paper.

Allows for data

Disadvantages

Must be linked to classroom objectives or loses meaning

Designing a 3-5 questions (multiple choice, short answer) can be challenging.

Questions must be precise enough to collect the needed data.

Word Clouds

Best used in:

F2F/Online

Definition: engages students in identifying and learning key vocabulary

Advantages

Motivates students to pay attention to keywords

Improves students overall vocabulary

Encourages students to try new technologies

Disadvantages

Time consuming to make

Manipulating words to show up as desired can be tricky

Requires students to be proactive learners

Jigsaw F2F

Best used in:

Definition: Students are made an expert in a topic as part of a group, then goes to another group to teach the topic.

Advantages

- Easy to learn, and enjoyable to use
- Can be used with other teaching strategies
- Makes students dependent on each other to succeed.
- Promotes social and emotional learning, and creates empathy in small groups

Disadvantages

Some students don't want to participate or are slower learners

Some groups get an imbalance with one student researching their portion of the topic, and other students in the group not doing any work

Can become overwhelming if learning is not chunked well

Think -Pair-Share F2F

Best used in:

Definition: Students think about possible answers to a question/problem then share their thoughts with a partner.

Advantages

Requires thinking on the part of each individual student to critiquing others' reasoning and to practice constructing their own arguments

Maximizes participation and focuses attention on the topic

Encourages introverted students to voice their thinking

Disadvantages

Requires formulation of strong questions/problems from the content

Some students will not put in the effort to think and share

Requires structured accountability to be assessed

Problem -based Learning Best used in : F2F/Online

Definition: (PBL) is a when students learn about a subject by working in groups to solve an open -ended problem or scenario

Advantages

No content is provided up front, students seek information on their own encourage long term knowledge retention

Works for short assignments or unit long

Encourages students to see leadership roles

Applies course content to real work examples

Disadvantages

Students lacking in information literacy, self direction or critical thinking skills will find this difficult

Problem must motivate students to seek out a deeper understanding of concepts

Does not prepare students for traditional or standardized tests

Assessment can be time consuming

Total Physical Response Best used in: F2F/Online

Definition: a method of teaching concepts by using physical movement to react to verbal input.

Advantages

Reduces student inhibitions and lowers stress

Creates a link between speech and action to solidify content to long term memory

Works well in a class of students who have mixed abilities

Changes the dynamics or pace of a lesson

Disadvantages

Does not allow for expression of individual thought

Challenging for introverted students

Boring if over used

Does not apply to all content areas, primarily used in vocabulary or language acquisition

Flipped Learning

Best used in:

F2F/Online

Definition: Direct instruction moves from the group learning space to the individual learning space.

Advantages

The resulting group space is transformed into a dynamic, interactive learning environment

Classroom time can be used to deepen learning and develop higher-level cognitive skills

Lesson content is more accessible and can be reviewed as often as needed

Disadvantages

Significant front end development

Students who expect the conventional mode of lecture-based teaching might find the sudden implementation of a new model disorientating.

Setting expectations and priming students for active student-centred learning, in which they will be expected to manage their own learning in a more proactive way, is crucial

Role Playing

F2F/Online

Best used in:

Definition: Assign roles for a concept, students research their parts at home, and they act it out in class. Observers critique and ask questions.

Advantages

Allows students to immediately apply content as they are put in the role of a decision maker

Allows for Peer to Peer critique

Instructor and students receive immediate feedback with regard to student understanding of the content

Disadvantages

Getting all students to participate and be truly engaged is a challenge

Assessing the interaction is challenging

Scavenger Hunts

Best used in:

F2F/Online

Definition: Ask students to circulate around the physical space or web and locate specific information.

Advantages

Builds student problem solving skills

Easy to create and customize

To use both body and mind

Can be done in teams

Disadvantages

Can be time consuming for students

When done in person, introverted students may dislike the task

Peer Teaching Best used in: F2F/Online

Definition: One student instructs another student in material on which the first is an expert and the second is a novice.

Advantages

Students receive more time for individualized learning.

Direct interaction between students promotes active learning.

Peer teachers reinforce their own learning by instructing others.

Disadvantages

Some students may feel that being instructed by another makes them inferior to that student.

Lack of confidentiality,

Improper pairing selection

Demonstration

Best used in:

F2F/Online

Definition: instructor shows students concepts or interactions and asks for predictions

Advantages

By making a prediction, students develop an expectation based on their initial understanding of the concept

Instructor can discuss the incongruities between their initial understanding and what the demonstration actually shows

Video demonstration allows for remediation at will.

Disadvantages

Can be time intensive for teachers to do in class or create on video

Icebreakers

Best used in:

F2F/Online

Definition: a facilitation exercise intended to help a group to begin the process of forming themselves into a team.

Advantages

Must have relevance to a specific class, are targeted to the appropriate group, and are varied

Allow students to get to know each other or say goodbye at the end of a course

If used at appropriate time, can energize the room

Disadvantages

Take time to find, use and develop

Not all students enjoy this as a social interaction

Can be hard to make inclusive of all participants

Field Trips

Best used in:

F2F/Online

Definition: a visit to a place outside the regular classroom to achieve certain objectives which can only be met elsewhere

Advantages

Facilitates the learning of abstract concepts

Motivates students by making concepts real

Develops students social awareness

Disadvantages

Time consuming to arrange, lots of logistics

If no reflection is done after, the point may be lost

Case Studies

Best used in:

F2F/Online

Definition: Stories that present realistic, complex, and contextually rich situations and often involve a dilemma, conflict, or problem.

Advantages

Encourages real world application of problem solving and critical thinking skills.

Bridges the gap between theory and application of knowledge

Disadvantages

Students don't always reach the desired insight

Answers don't always generalize to other cases

Finding or writing case studies can be time consuming

Infographics

Best used in: F2F/Online

Definition: an image that combines flowchart logic and visual presentation to explain a concept

Advantages

An eye catching way to blend art and information

Use as visual aid on difficult concepts

Possible discussion starter, or debate

Fun to have students make their own

Disadvantages

Takes time to create

Can be missing information or not the full story

Can appear visually overwhelming

Think -Pair-Share:

Learning from Success; Discuss an example of when one of these worked well for you?

Learning from Failure; Discuss an example of when one of these did not work?

Evaluating and Selecting a Strategy for Use



- Mind Mapping
- Games and Interactions
- Discussions
- Peer Review
- Fish Bowl
- Reflection
- Minute Paper
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Barrier to Implementation

So why are we not all doing this?

What are 2-3 key barriers you and others on your campus face?

What specifically will you do to address these challenges?

Discussion

KWL:

- What do you know about Active Learning?
- What do you **want** to know?
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