



Active Learning Strategies:

Engaging Students in Active Learning

Day One

- Opening Question
- Cold Call: No Opt Out/Stretch It
- HRASE Questioning
- Two-minute Paper

1. Opening Question

In order for students to learn effectively, they must make connections between what they already know (prior knowledge) and new content to which they're exposed. The opening of a lecture should facilitate these connections by helping students exercise their prior knowledge of the day's subject matter.

1. Opening Question

One useful strategy is to open the lecture with a question. Present an "opening question" on a PowerPoint slide, give students a moment to think about their response, and then ask a few members of the class for answers. This strategy is easy to initiate, takes very little time, works in small or large classes, and effectively focuses students' attention on the day's topic. It also provides the instructor with useful feedback on what students know and don't know about the material being presented.

Example of Strategy 1

- Take a moment to reflect on your experience having students contribute their ideas in class.
- Come up with a positive and a negative example.

2. Cold Call: No Opt Out/ Stretch It

In order to make engaged participation the expectation, call on students regardless of whether they have their hands raised.

Strengths:

- Allows for constant checking for understanding (formative assessment)
- Increases your speed – do not lose time waiting for a student to volunteer
- Affords students opportunities to give their insights
- Offers predictability – it is an engagement strategy, not a discipline strategy

2. Cold Call: No Opt Out

No Opt Out —

What happens once you cold call and the student responds, “I do not know.”

Effective teachers do not allow their students to opt out of answering questions or participating in the activity.

No Opt Out is a technique focused on making sure any student who is unable to answer a question still ends up participating.

2. Cold Call: No Opt Out

No Opt Out Example

Teacher: Jafari, what is a noun?

Jafari: I don't know.

Teacher: Roberto, what is a noun?

Roberto: A noun is a person, place, thing or idea.

Teacher: Jafari, what is a noun?

Jafari: A noun is a person, place, thing or idea.

2. Cold Call: Stretch It

Stretch It—

The sequence of learning does not end with a right answer; reward right answers with follow-up questions that extend learning knowledge and test for reliability. This technique is especially important for differentiating instruction.

2. Cold Call: Stretch It

Stretch It—How Does It Work?

- Ask how or why
- Ask for a better word
- Ask for evidence
- Ask students to integrate a related skill

3. HRASE Questioning

The HRASE Questioning Strategy is for initiating questions at an appropriate level of difficulty and then scaffolding to more challenging questions.

It is typically used following a student learning activity. The strategy starts with “safe” questions necessary to avoid intimidating students and stifling interaction.

The strategy emphasizes students' prior experiences and uses these experiences to build relationships, apply knowledge, and create explanations.

3. HRASE Questioning

HRASE stands for:

H – History

R – Relationships

A – Application

S – Speculation

E – Explanation

Activity Introduction

- What makes the bulb in the flashlight light?



Activity

- Make the bulb light using 1 wire and 1 battery.
- Identify at least 4 different ways to make the bulb light.

Draw a picture of the set ups that make the bulb light

Draw a picture of at least one set up that did not make the bulb light



Example of Strategy 3

History – questions that relate to students' experience

- What did you do . . . ?
- What happened when you . . . ?
- What happened next . . . ?

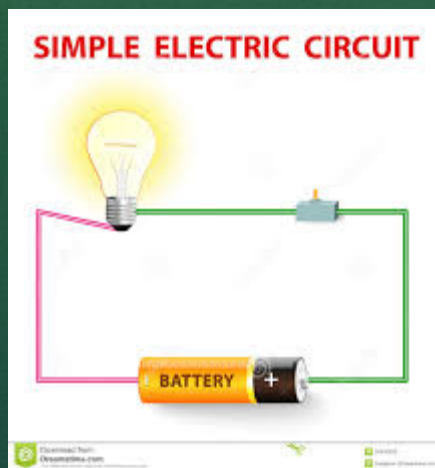
Example of Strategy 3

Relationships – questions that engage students in comparing ideas, activities, data, etc.

- How does this compare to . . . ?
- What else does this relate to . . . ?
- What do all these procedures have in common?

Relationship Questions

- Where does the wire need to touch the bulb for it to light?
- Where does the wire need to touch the battery for the bulb to light?



Teacher uses student experiences to ...

- ✓ Connect prior knowledge and background to new discoveries.
- ✓ Communicate new understandings.
- ✓ Connect informal language to formal language.

Example of Strategy 3

Application – questions that require students to use knowledge in new contexts

- How could this idea be used to design . . . ?
- What recognized safety issues could this solution solve?
- What evidence do we have that supports . . . ?

Example of Strategy 3

Speculation – questions that require thinking beyond given information

- What would happen if you changed . . . ?
- What might the next appropriate step be?
- What potential problems may result from . . . ?

Example of Strategy 3

Explanation – questions that get at underlying reasons, processes, and mechanisms

- How does that work?
- How can we account for . . . ?
- What justification could be provided for . . . ?

4. Two-minute Paper

In this strategy, the instructor pauses and asks students to write in response to a question, a statement, or a digital or visual aid presented on a PowerPoint slide. The strategy can be used at any point in a lecture, but it's particularly useful at the end as a way of encouraging students to summarize the day's content. The two-minute paper encourages students to put information in their own words, helping them internalize it and identify gaps in their understanding.

4. Two-minute Paper

When collected at the end of the period, the two-minute paper can serve as a classroom assessment technique to help instructors gauge how well students are learning the material, what they understand, and what the instructor needs to spend more time on.

Example of Strategy 4

- **Pre**
“In two minutes, write about what you learned from this week’s readings.”
- **During**
“In the next two minutes, respond to this quote.”
- **Post**
“In the final two minutes of class, write a summary of what you are taking away from today’s lecture and what questions you still have.”

Alternatives to the Two-minute Paper

Students may think that two minutes is not a lot of time to write anything significant *or* they may think that it is too much time and they have nothing to write. But, what if you asked them to write a:

Six word memoir ([video](#))

Example: “In six words, summarize what you already know about this topic.”

144 character tweet

Example: “Live tweet during the lecture a point or idea that resonates with you.”