

Learning Activities

Faculty are often searching for practical strategies to make their teaching engaging and impactful. The following chart outlines some common teaching goals, along with the active learning techniques often used reach those outcomes. This document includes activity design guidance and alternative options for each strategy as well as large class considerations.

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Assessing Individual Understanding

“Minute” Paper or Muddiest Point

In this activity, students write a paragraph or two responding to a prompt that captures their current understanding of classwork at this point.

Preparation

Plan a break during or at the end of the class where students respond to a prompt designed to gauge their understanding.

Process

1. Provide 1 to 5 minutes for students to respond in writing to a prompt. Examples:
 - Connections students make with the topic
 - Clearest or muddiest topics
 - Higher-order thinking questions.
2. Use the results as a formative assessment to drive instruction in the next session.
3. Collect papers or have students submit via **myCourses dropbox** or **discussion**

Variations

- Use submissions papers to track attendance.
- Have groups work together in a **collaborative document** and share with **in-room display**

Large Class Considerations

Combine with Think-Pair-Share, where groups choose the top items to share back to class.

- Collect and review all or a subset after class and summarize themes in the next class.
- Have students review each other's work and upvote/ downvote items to discuss as a whole class.
- Have students respond in a **Google Form** with live display

Goals

- Writing skills
- Self-assessment
- Gauging individual understanding

Entrance and Exit Tickets

Use a low-stakes assessment to determine students' understanding before beginning or leaving a topic.

Preparation

Prepare a paper or myCourses Quiz that covers key concepts of a topic.

Process

1. Administer a low stakes assessment to determine students' understanding of the material while in class.
2. Use the results to guide the next steps in class.

Variations

- Use publisher-prepared assessment materials.
- Conduct using on-screen slides and a **student response system** or **online polling tool**
- Use a variety of question types, including multiple choice and short answers.

Large Class Considerations

- Use myCourses auto-grading to determine results immediately.
- List results on a whiteboard, slide or **doc cam** for the whole group to view to understand themes.

Goals

- Gauging aggregate understanding
- Gauging individual understanding

Easy Engagement

Discussions

Discussions are a quick and common way to drive student interaction in class.

Preparation

Take the time to develop a prompt that asks for the students thinking behind their answer, for example:

- What evidence do you see that...?
- Why is x a better option than y ?
- [one more]

Variations

- Give students a moment to write notes before asking for verbal responses
- Project the discussion question(s) and other directions, especially if small groups are working independently.
- Assign a note taker to capture thoughts on a whiteboard or **collaborative document**
- Use a **live chat** technology to allow additional discussion options
- If flexible furniture is available, encourage students to rearrange it to facilitate interaction

Large Class Considerations

- Break the class into subgroups working on the same or a different question.
- Pick a smaller number of groups or individual students to share back to class.

Results

- Verbal communication
- Collaboration

Think-pair-share

This popular structure enables students to work in progressively larger groups and to fine-tune their thoughts before sharing them with the whole class

Preparation

Devise an open-ended prompt where students may develop different answers.

Process

1. Break in the lecture to pose your question.
2. Direct students to think individually to develop and write an answer.
3. Next, ask them to discuss or compare their ideas with a partner.
4. Each pair should settle on a single response based on the most compelling answer.
5. Pairs then with another pair to develop a consensus answer.
6. Groups share their conclusions with the full class.

Variations

- If flexible furniture is available, encourage students to rearrange it to facilitate interaction
- Have groups share their thoughts on a whiteboards or online collaborative workspace with in-room displays.
- At the end, summarize themes to ensure students achieve desired learning

Large Class Considerations

- Pairs or group share back to subgroups instead of the whole class.
- Pick a selection of pairs/groups to share back to class.
- Students share into a **collaborative workspace**. Instructor summarizes themes in class or later in **myCourses**.
- Students share into a **myCourses discussion**.

Goals

- Engagement
- Collaboration
- Gauging aggregate understanding

Gallery Walk

This activity requires some additional prep, but can cover a lot of material in one activity that gets students moving around the room.

Preparation

Develop 4 or more prompts around the lesson topic to place at stations around the room, for example at the top of a whiteboard or on a table tent.

Process

1. Instruct students to walk around the room individually or in groups.
2. At each station, students discuss and document their responses to the prompt using, for example, whiteboard markers or post-its.
3. Students rotate to each station, reviewing prior students' answers, and adding their own.
4. After all stations have been visited, the full class discusses final conclusions.

Variations

- Use Flipchart paper or whiteboards and markers.
- Use a **collaborative document**, with **in-room displays** to share results.
- Assign groups to summarize themes at each station before debriefing.

Large Class Considerations

- Have multiple copies of each prompt and split room into sections where students only rotate within their section.

Goals

- Consensus

Collaborative Problem-Solving

“35”

The structure of this activity can require some getting used to by students, but provides a more objective evaluation of options.

Preparation

Develop an open-ended prompt that can have wide-ranging responses; distribute a card to each student.

Process

1. Introduce the prompt or question and ask each student to write their answer to the prompt on one side of their card
2. On the other side, they draw five boxes.
3. Students circulate exchanging their cards with another student.
4. At a signal, students pair up to discuss the answers on the two cards they have.
5. Students divide 7 points based on how much they like or agree with the answers on the two cards. For example, they may award one answer 5 points and the other only 2 points.
6. They write the allotted number of points in the first box of each card.

7. Students circulate again and repeat the process of exchanging cards, discussing the two alternatives, and rating points.
8. Continue until the five boxes are filled.
9. Students tally the numbers on the card they have at the end of the process.
10. Facilitate discussion of top three point-getting answers.

Large Class Considerations

- This activity needs a minimum of 12-15 students to work well, and works very well in large groups.

Goals

- Engagement
- Collaboration
- Gauging aggregate understanding

Sequencing/ Placement

In this activity, groups work to place a number of items in a desired order.

Preparation

Prepare a number of cards (at least five) listing items that can be put in a specific order based on your prompt, such as steps in a process or historical events.

Process

1. Give groups the cards and ask them to place them in the correct /most ideal sequence, location, or orientation.
2. After groups are finished, ask them to report out.

Variations

- Have students do their first pass individually or in pairs, then compare with another individual or pair to develop consensus.
- Use physical items or cards with images rather than written cards.
- Rearrange furniture to facilitate group work

- Have students work on an **online whiteboard** with in-room display
- Have students use another organizational scheme besides ordering.

Large Class Considerations

- Pick a smaller number of students to share back to class.

Goals

- Collaboration
- Problem-solving
- Gauging aggregate understanding

Immediate Feedback Assessment Technique (IF-AT)

This activity requires a mechanism that reveals whether a student's answer is correct, without revealing the correct answer.

Preparation

Prepare a series of multiple choice questions corresponding to the answers listed on an IF-AT scratch card.

IF-AT cards

Process

1. Distribute a quiz coordinated with the IF-AT card; this can be on paper, in myCourses, or on a slide.
2. Students take the quiz individually, adding their own score based on the results.
3. Students discuss any answers they got wrong with a partner and come to consensus on their second choice answer.
4. Students check their second answer to see if they are correct.
5. Incorrect answers are discussed between partners and submitted again.
6. The process repeats until all the answers are correct.

Variations

- Use the **myCourses quiz tool** to create questions and evaluate responses (multiple attempts, display incorrect answer only).

Large Class Considerations

- Have students compare with larger groups instead of pairs.

Goals

- Gauging aggregate understanding
- Gauging individual understanding
- Collaboration
- Consensus

Concept Map

Concept maps can be a creative way for students organize what they know in a visual form that makes it easier to see relationships and connections that might not otherwise be evident.

Preparation

Before launching this assignment, you may want to:

- Share images of different concept maps to give students an idea of what is intended and allowable.
- Distribute colored markers, stickers, scissors or other tools, depending on how far out you're comfortable having students go.

Process

Ask students to create a graphic representation of how important ideas, concepts, and facts in the course connect and interrelate.

Variations

- Provide a word bank of items that must be included.
- If students work on whiteboards, be sure they capture a **photo** before the end of class

- Use **concept-mapping** or **online whiteboards** to create map and in-room displays to share results.
- Paper maps can be shared with a **Doc Cam**

Large Class Considerations

- Provide a word bank to help prevent concept maps from being too confusing.
- Each group gets a separate concept to start from. Instructors or students put it all together in one map after.
- Instructor/TA reviews and shares back a representative "to improve" and "ideal" version, or shares back summary in next class.
- Students post to **myCourses discussion** to see each other's maps.

Goals

- Gauging aggregate understanding
- Collaboration
- Consensus

Case Studies

Case studies can add some “real-life” content to your class, as students identify, analyze, and try to solve actual problems from the workplace.

Preparation

Identify one or more case studies that provide opportunities for students to apply course learnings.

Process

1. Distribute a realistic scenario or case study.
2. After students have a chance to read and ask questions about the case, clarify the decisions that have to be made or problems to be solved.
3. Students work in small groups to develop their solution as a paper, discussion posting, or presentation.

Variations

- Student work can happen in the classroom, over two or more classes, or as homework.
- Use myCourses to distribute case study materials.
- Have students pre-read the case study materials before class to allow more worktime.
- Encourage students to use **collaboration software**
- Develop fictional case studies that directly relate to course content.

Large Class Considerations

- Use multiple copies of the same case. Groups with the same case present to each other instead of the whole group.
- The instructor can pick just one of the groups with the same case to share at random, and then allow the other groups to comment or add additional information.
- Give students different cases.

Goals

- Collaboration
- Presentation skills
- Writing
- Critical thinking

Creating Learning Resources

Fill-in-the Blank Notes

Students don't always create the best notes, but providing a solid structure for their notes can help them create a valuable review tool.

Preparation

With the lesson topic(s) in mind, create a series of headings to guide student note-taking.

Process

1. Provide handouts with headings followed by blank areas
2. Students work in groups to complete the notes, based on:
 - Your lecture
 - A demonstration
 - A video or performance
 - Library or internet research
3. This can be in class or assigned as homework.
4. You can include suggested sources of additional information.
5. Groups share their work with the full class to provide a complete understanding of the notes.

Variations

- Instead of paper, have students work in a **collaborative workspace** or document
- Use **in-room displays** to share results.
- At first group members create notes individually, then work together to make sure they are complete and correct.
- Use **backchannel technology** to allow additional discussion options.

Large Class Considerations

- Instructor/TA collects all and reviews after class, then summarizes themes in the next class.

Goals

- Gauging aggregate understanding
- Collaboration
- Writing

Annotating Readings

Annotated readings give students practice in deeply analyzing sources and working together to discover insights.

Preparation

Identify one or more readings that are relevant to the work the class is doing.

Process

1. Distribute or assign reading(s) and provide guidance on what students should be looking for.
2. Groups annotate the passage according to the model presented.
3. Groups share their work to provide the full class with a complete understanding of the reading.

Variations

- Distribute readings in **myCourses**.
- Groups can use **collaborative writing software** to read and annotate together.
- Use **in-room displays** to share results

- Different groups are assigned a different “lens” to study the reading through.
- Use annotation for exam review where students highlight key concepts.

Large Class Considerations

- Pairs/groups annotate different documents or different parts of the same document to help prevent duplication.
- Group 1 annotates part 1, then passes part 1 to Group 2 to annotate. Group 2 annotates part 2 then passes to Group 3. All groups get all parts by the end.
- Provide readings in advance to accommodate for variable reading speeds.
- Use **myCourses Groups** to provide different readings to different groups. Share final annotated versions to the full class.

Goals

- Collaboration

Jigsaw

In a Jigsaw, the entire class works together to create a presentation or other study source for a course topic.

Preparation

Identify the topic(s), aspects, and format of the final product students will create.

Process

1. Assign groups one aspect of a topic or concept.
2. Groups work together to distill their topic down to the most important parts.
3. Groups present their results to provide the full class with a complete understanding of the topic or concept.

Variations

- Depending on the size and complexity of the topic, students can work in- or out-of-class.
- Students can use **collaborative software** to develop each part and assemble the final product.
- Assign different types of presentation formats or displays for different topics.

Large Class Considerations

- Multiple pairs/groups are given the same topic. Everyone prepares, but only some pairs/groups are picked to share.

Goals

- Collaboration
- Communication

Individual Preparation/Group Work

Flipped Classroom

The Flipped Classroom is a course design technique used to maximize the amount of class time devoted to activity instead of lecture. In the flipped classroom, lecture material is assigned as out-of-class work, as readings or, typically, videos, that students must read or view before class.

Preparation

Identify or prepare the pre-class work and post it in myCourses.

Set strong expectations that students are responsible to know and apply the content when they walk into class.

Process

Instructors provide direct instructional materials before class.

1. These materials can be audio, visual, or written and can be self-created or created by others.
2. Students are accountable for accessing and understanding these materials before class so they are ready to use them in class.
3. Class is then used for application activities based on the instructional materials.

Variations

- Use **myCourses** as a central location for all materials.
- Explore resources created by others (e.g. YouTube, Khan Academy).
- Depending on the content provided, you may want to encourage students to take notes they can refer to in class.
- Collect notes as a formative assessment.
- Use a **myCourses quiz** or **in-video quizzing** to check students' understanding before class.
- Use **myCourses dropbox** to collect formative assessment activity.
- Use **myCourses analytics** to understand how students are interacting with the materials.

Large Class Considerations

- Auto-grading technology can provide the correct answers and written feedback immediately after pre-class quizzes.
- Use **myCourses progress dashboards** to quickly determine disengaged students.

Goals

- Independent work habits

Technology Options

These are some of the technology tools you can use to support active learning activities. Technologies with an asterisk (*) are not supported by RIT.

Collaborative workspaces

Google Workspace
Zoom whiteboard
Slack
Doc cam *

In-class display

Mersive
Zoom

Polling

iClicker cloud
Slido *

Pre-class prep (flipped classroom)

myCourses Assignment *
myCourses Discussion *
Panopto *
Camtasia *

Post-class assessment

myCourses Assignment
myCourses Discussion
Google Workspace
myCourses quizzes

Post-class sharing

myCourses Discussion *
Slack

Live “backchannel” discussion

Slack

Annotation

Google Workspace
Microsoft Word or Adobe Reader (individual)
myCourses Content
myCourses Groups

Tracking engagement

myCourses Class Progress