

# 5 MINUTE TEACHING DEVELOPMENT

## Advanced Active Learning Strategies

### What is it?

Advanced active learning formats are designed to engage a student's critical thinking skills and apply previous and new knowledge to real-life scenarios. They still employ the critical elements associated with active learning “in doing things and thing about the things they are doing (reflection)” with more emphasis on the higher order learning processes.<sup>1</sup> They are processes designed for students to be responsible for their own learning with structured, and open-ended guidance from instructors.

### Why is it important?

As you learned during the 5-minute Faculty Development Session on “Encouraging Classroom Participation”, active learning involves student development of critical thinking and problem solving skills. More advanced engaged learning activities that require additional planning by the instructor are case-based learning, team-based learning or problem-based learning. Students continue to fail in their ability to demonstrate complex thinking skills because their educational experiences have provided little support for development of these skills for maximal performance. Multiple teaching styles exist to encourage students to apply critical thinking skills to open-ended problems utilizing multiple points of view.

### How do I do it?

The traditional model of students as passive recipients of learning has been shown to be inadequate to foster a students understanding and enhance a student’s interest. As student’s become active learners, faculty become active teachers. A teacher’s responsibility moves beyond providing a didactic lecture and more towards encouraging students to be more independent after providing a conducive, team-based learning environment.

#### Case-based learning

Three-part case based learning, or scenario-based story, helps students develop a deeper understanding of the material. The instructor is responsible for creating a complex and engaging scenario or case which parallels the concepts of the lesson. Student may be additionally directed using guided questions however; students will use critical thinking skills to dissect the scenario while communicating a collaborating as a group. Using this technique, students are presented with real-life scenarios that are multi-faceted. Though these are often clinical scenarios, case based learning can be used in basic science courses to portray foundational knowledge that is applicable to clinical practice adding relevance to the material.

#### Team-based learning (TBL)

This approach utilizes student-student interaction in small teams to develop critical, practical, and creative teaching in their courses. Students assume the role of being inquirers and faculty burnout is decreased with increased student responsibility and student engagement. Key characteristics of TBL include the creation of heterogeneous work groups, a readiness

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process to ensure content knowledge, and small group activities. The team based learning module is especially appropriate in larger class sizes by allowing the class to function as multiple small classes.

## Problem-based learning

In this approach, a student's learning is facilitated by an instructor presented problem. Students will work through this carefully constructed, open-ended problem by engaging and applying new knowledge. The success of PBL is dependent on several factors: problems should allow for free inquiry, collaboration is encouraged and essential, and feedback in the form of reflection on their learning should be provided. The premise of PBL resides in the students to apply previous knowledge to new situations.

## Quick tips

In summary:

- Allow the student to be the inquirer.
- Think strategically of what you want students to accomplish by the end of the class and design your advanced active learning session accordingly.
- Be mindful of the time for preparation for an advanced active learning structure. If designed poorly, students may be less engaged.
- Employ an advanced learning model strategically that best fits the structure and purpose of the course.
- Heterogeneous groups should be created with a structure in place to allow each team to function independently.

## More information

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