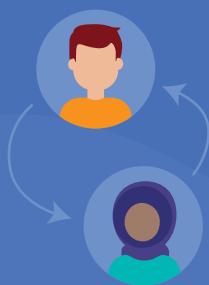


# COLLABORATIVE TEACHING SEQUENCE

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## WHAT IS A COLLABORATIVE TEACHING SEQUENCE, AND WHY DO WE NEED ONE?

A collaborative teaching sequence is a set of actions that provides teaching assistants with structure to know what kind of collaborative prompts are necessary at different times of the class. According to researchers, teachers should implement strategies that can facilitate student interactions in groups which, in turn, positively impacts the group progress towards solving the task during the activity. These strategies must take place prior to the beginning of the activity, during the activity, and at the end of the activity.

## IMPORTANCE OF SETTING THE STAGE

- Stress the importance of both objectives of the course during the very first class:  
**Learn Content + Develop Collaborative Practices**

### **Learn content**

- Worksheet problems are designed to promote collaboration – engaging in collaboration provides the opportunity to learn how to talk about the content – which is required in the workplace.
- Doing different types of problems increases understanding, applying your knowledge to authentic problems helps you develop deeper understandings of the content.
- Collaborative assignments better resemble real-world work, even if you do not see a direct connection final exams or other assessments that are part of the course; developing a deeper understanding of this material will help with all aspects of your program.

### **Develop collaborative practices**

- During the first class create three lists in collaboration with the students so that everyone has common expectations and understanding of collaboration:
  1. Benefits of working in groups
  2. Behaviors of effective groups
  3. Behaviors of that disrupt collaboration in groups
- Emphasize that collaboration is an assessment metric for the discussion. Reference the lists generated as a class when reminding the students that their grade is based on participating in

# AT THE BEGINNING OF CLASS

- Ask for students' attention; make sure they are being attentive
- Situate the worksheet in the scope and sequence of the course
- Provide a simple description of the task; avoid an elaborated description so the groups can explore the task together
- Explain to students the core concepts that are associated with the task especially if they were not explained during the lecture
- Remind students that their grade in the discussion session is affected by their participation with the other group members
- Explicitly present expectations to the groups, both task-related (any steps that may be missed or skipped) and collaboration-related (refer to list of effective collaborative behaviors if available)
- Advise students to talk to each other to resolve areas of complexity and throughout the lesson so that everyone is on the same page

**Avoid over explaining – allow students to ask each other and learn together**

## DURING THE CLASS – AT THE GROUP LEVEL

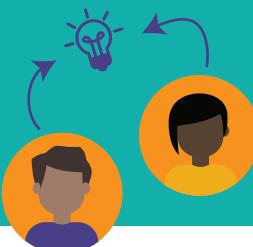
- Know when NOT to intervene - if group members are discussing or working together; follow up on these groups to check if they resolved difficulty rather than providing them an immediate solution

**Avoid providing the group with the right answer, instead say, “This looks about right, what do your team members think?”**

- De-emphasize the numerical answer; prompt them to ask their group members if their answers make sense
- Prompt the groups' thought process by questioning their assumptions
- Be a model of good collaborative behaviors you want the students to exhibit, such as re-voicing their answers, actively listening, and asking for help

- Instruct silent groups to implement collaboration-related behaviors (refer to list of effective collaborative behaviors if available); some groups will not want to collaborate, (or will not know how to engage their reluctant peers in collaboration), be prepared to prompt multiple times or if necessary, switch group members
- Challenge students' ideas: “Can you explain why you think that?”
- Address everyone in the group when speaking, not just one group member

**Wait before intervening; observe: use eyes + ears strategically**



## DURING THE CLASS – AT THE WHOLE CLASS LEVEL

- Avoid long whole class interventions if it's not critical to accomplishing the worksheet
- Announce information that was forgotten in the introduction or if there is an error in the worksheet
- Clarify unclear content in the activity especially after observing that more than one group have a problem with it

**“Hey everyone, the class is a little too quiet. Just a reminder the point of this class is to work together!”**

- If the room seems quiet or a number of groups are off task quickly prompt the entire class
- When making announcements, ask for students' attention; make sure they are attentive to what you are saying
- Modify the worksheet expectations based on group progress on the task only if absolutely necessary



## AT THE END OF CLASS

- This is a very difficult part of discussion to enact, as most students want to keep working on the worksheets until the bell; the value of interrupting groups' work may depend on the activity
- Reiterate the goal of the worksheet and how it is situated in the scope of the course
- Share with students demos or animations that are related to the worksheet

**Try asking different groups to share their answer and how they solved the problem**

- Prompt students to consider wider applications or extensions of what they learned
- Discuss different groups' answers, address specific obstacles that many groups encountered
- Comment on moments of optimal group behavior; this requires paying attention to good examples throughout the class time
- Asks students to comment on successful collaborative instances or things they want to work on in their group



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**Acknowledgements:** Content was created with contributions from Robin Rajarathinam, Emma Mercier, and Mariana Silva. This work was funded by the National Science Foundation under grant #1628976 and #1441149. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

