SeeMeTeach®
Teacher Challenge

Small Group Productivity: Lesson Structure, Student Interactions and Equitable Contributions

SMT Teacher Challenge
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The minimal required training to complete this challenge includes:
- Training 1: SMT Observation Setup
- Training 2: Qualitative Comments Mode
- Training 3: Quantitative Data and Analysis Mode
- Training 4: Student Misbehaviors and Teacher Reactions – (M Codes)
- Training 5: Student Actions and Engagement – (S Codes 1-9)
- Training 10: Small Group Summary

Data collection should focus on L, M, and S codes while utilizing the seating chart. Demographics could be designated for this *Teacher Challenge* as well.

Introduction

A common pedagogical strategy used in classrooms is to group students for labs, discussions, working problem sets, or a variety of other reasons. Small group lessons can foster high student physical and mental engagement and be a great tool for learning and development. Yet small groups can be notoriously inefficient and inequitable regarding who is engaged and doing the work versus who is along for the ride. One or two group members might dominate discussions while others remain silent, resulting in inequitable contributions within the group.

A commonly seen teacher behavior to offset the lack of engagement in small groups is for the teacher to move from group to group, interacting to keep the group moving forward with the main goal of getting to the endpoint. The author calls this type of action "plate spinning," as seen in a vaudeville act where the person puts the plate on a rod and spins it before moving to the next rod and spinning another plate until they have ten plates spinning on rods. After spinning the last plate, they quickly move to the first plate because it is slowing down and needs a refreshing spin before moving to plate 2 for a spin, and so on. First, teaching this way is exhausting. Second, being the force that pushes the students to keep moving forward removes this responsibility from the small group members. Suppose during a lesson, the goals for students are to have them learn to monitor their effort and work, make decisions about their efforts, results, and progress, learn to be independent thinkers and workers, and learn to work within a team. In that case, teachers can undermine these important outcomes by taking on the plate spinner role.

This challenge will help any teacher implement strategies to make small groups more independently functioning and less dependent on the teacher, thereby creating a less stressful teaching environment for the teacher and a more productive lesson/activity for the students.

The Challenge

This challenge is about optimizing the impact on student learning and student contributions to a small group by promoting powerful strategies to increase student-student interactions and optimize engagement and contributions from all students.

Challenge Steps

1) **Teach a Lesson**: First, capture the video and audio of the lesson. Make sure to teach the lesson as you normally would, as this lesson will be used for your baseline data. **Note**: The focus is on the interactions between students within the small group, so there are two possibilities for recording the lesson to consider:
   a. Suppose you want a sampling of the interactions from all small groups. In that case, this is only possible using a microphone for each small group that feeds into a box with a selector that allows the person recording the lesson to choose which small group's audio to feed into the recording. This setup would also capture the teacher's interaction with each small group. *Or*
   b. If you want just the audio and video from a small group representative of what is happening in other small groups, then place one microphone on the center of the table in one of the small groups. Orient the camera, ideally closest to the small group with the microphone, so the observer can see who is talking and contributing. The teacher and student vocals will be captured when the teacher interacts with the small group.

Note: See the SMT Teacher Challenge landing page on the SMT website for suggestions/devices when recording small group audio and video.

2) **Complete the Required SMT Training:** If not already done, complete the required training to learn how to collect the specific data required for this challenge. The minimal required training recommended includes:
   Training 1: SMT Observation Setup
   Training 2: Qualitative Comments Mode
   Training 3: Quantitative Data and Analysis Mode
   Training 4: Student Misbehaviors and Teacher Reactions – (M Codes)
   Training 5: Student Actions and Engagement – (S Codes 1-9)
   Training 10: Small Group Summary

Note: The cheat sheets that accompany these trainings provide a comprehensive summary of the training and are excellent resources to keep on hand while you code your recorded lessons.

3) **Collect Data**: Use the SMT teacher observation app to collect baseline data specifically focusing on student engagement and misbehaviors.

4) **Document and Analyze Data**: After you have collected your baseline data, utilize the Small Groups data analysis page to plot the pertinent data on the *Data Summary and Change Chart* on the next page.

5) **Revamp Your Teaching:** Implement one change to the way you approach the facilitation of small groups in your classroom. It is recommended to:

   a. Only implement one change or one strategy at a time to determine what is making the difference in student engagement.

   b. Fill out the "My Plan of Action" google form to document your observations and progress through this teacher challenge. This can be used for your personal development or as evidence for a yearly observation or pre-service teacher certification program.

Note: See the Implementing Growth and Change section in this teacher challenge for additional suggestions on implementing specific changes to your teaching.

6) **Repeat Challenge Steps 1, 3, 4, and perhaps 5:** One cycle through this process might achieve the desired results, but more than likely, it might take more than one cycle. Teaching is complex, with many variables in play, but know that sometimes a very small change can have a noticeable and sometimes very large effect on the learner or the learning environment.

Data Summary and Change Chart

Note: All data can be gathered from the *Small Groups* data analysis screen										
Group	Misbehaviors		Student Interaction w/the Teacher			Student - Student Engagement			Student Answering ? 's	Total
	M10	M12	S1	S3	S1+S3	S2	S4	S2+S4	S5	S1-S5
G1										
G2										
G3										
G4										
G5										
G6										
G7										
G8										
G9										
G10										
Total										

Equitable Contributions (General observations of trends and patterns) All data can be pulled from *Seating Chart Heat Map* and/or *Demographics*

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Observation 1	
Observation 2	
Observation 3	
Observation 4	

Lesson Distribution of M and S Codes – When looking at *Teacher Actions Plus,* note the general flow of M and S codes. Where did M codes occur most (if at all)? Was there an even distribution of S codes? Where were S codes lacking in the lesson?

	General Lesson Distribution of M and S Codes
Observation 1	
Observation 2	
Observation 3	
Observation 4	

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Data as Indicators/Questions to Ponder:

- Generally, how did the teacher foster the goals for the small group and the lesson?
- In what ways did the teacher generally lessen the intended purpose of having students work in small groups?
- How might the teacher improve?
- How was the teacher's ability to pace themselves and get around to all small groups without taking too much time with one small group? Was there any "plate spinning," and what could be done to avoid it?
- How are students generating questions and comments to the teacher? (Look at S1 and S3 counts).
- How are students generating questions and comments and responding to each other? (Look at S2, S4, and S5).
- What did the Seating Chart Heat Map show for the number of individual contributions within groups?
- When looking at Teacher Actions Plus, where did most M and S codes occur? Was there a consistent pattern of S codes throughout the lesson?

Implementing Change and Growth

A note on misbehavior: Misbehavior is one of the most prominent ways small group activities can become unproductive and extremely stressful for teachers. Misbehavior in a small group occurs because students 1) do not have a specific task to complete, 2) do not understand what they are doing, or 3) are engaged with material that is too complex for them to understand. Many of the suggestions below, such as student roles and cooperative strategies, will indirectly but positively affect the overall behavior in small groups, increasing student engagement, and decreasing behavior issues.

Factors that can be altered that might affect small group interactions and engagement in the lesson include:

- Structuring the lesson, so students have roles. Examples of roles include timekeeper, materials manager, note-taker, and speaker. Make sure to discuss and model each role, so students know what is expected of them. Making posters and the expectations of each role helps, as they can easily be referenced if a student is off task or needs a friendly reminder.
- Using counters to help foster equitable student contributions. Each student gets a specific number of an object, such as a bingo chip, penny, marshmallow, etc. Whenever they contribute or ask a question, they toss one of the objects into a bowl in the center of the table. The expectation is that each student must contribute all their objects by the end of the lesson.
- Altering group size so everyone can feel included. Minimizing group sizes to 2, 3, or 4 group members helps to more equally distribute the tasks of the lesson so that everyone can easily play a part in the activity.
- Establishing social skills/goals for the groups. Incorporating practicing social skills is great for building character and social skills in any class of any age and minimizing behavior issues. Simply choose a skill relatable to the age group you're teaching. For example, young students may be working on "listening politely," while older students may be working on "constructing coherent and concise arguments." At the beginning of class, create a T-chart (like the example below) on the front board. Write the skill being practiced on the top of the "T." On the left side, write "Looks Like," and on the right side, write "Sounds Like." As a class, fill out the T-chart, then have them practice the

social skills during the activity. These skills can be scaffolded and built on throughout the year and can be graded on a pass/fail/in-progress spectrum.

Social Skill to be Practiced: *insert here*	
Looks like:	Sounds like:

- Building individual accountability and group interdependence into the lesson using cooperative strategies such as a Jigsaw activity. Cooperative learning lessons are powerful because group members each have a role and are experts in a specific and necessary aspect of the activity. They promote high student-student interactions through questions, suggestions, reactions, comments, decisions, and information sharing. In the manner that the lesson is formatted, the group must work together to achieve success. These lessons always foster incredible student-to-student communication and exchange. Students are engaged at high levels from beginning to end; nobody is left out or can play a passive role. And the teacher's role is largely just monitoring students at work and not interfering with the incredible flow of energy and activity.
- Using group-sized data recording so all members can contribute and comment. When collecting data or gathering information, structure the activity so that each group member has specific data or information to collect. Doing so gives each group member a specific task to complete so that no group member can sit passively and no group member can take over completing the work. When each group member has to contribute for the group to succeed, more time is spent engaged with the activity, and more student-student interactions occur due to the reliance on one another to complete the task.
- Identifying and noting small group work that occurs by group number. Completion of the task or working together/cooperating could be a part of their overall grade. The group that finishes the task and works well together could receive a small incentive or extra points on their group grade.
- Setting a time limit. Students (and people in general) will notoriously procrastinate. Giving groups a set amount of time, so they have enough but not too much time, will help to prompt students to use their time wisely and complete their tasks within the allotted time. Posting a giant timer on a Smart Board or Smart TV is a great visual cue that students can reference and use. *(Note: Unless you have significantly errored on time estimated for and needed to complete the task, do not give students more/additional time as it will only reinforce non-productive use of time.)*