

## Teacher Reflection Tool: Equitable Participation in Small Group and Pair Work



Working on math in small groups and pairs provides students the opportunity to solve problems collaboratively, to share their mathematical ideas, and to learn from each other. How students are grouped and supported during these times, and how they interact with each other, can impact their learning and the development of their mathematical identities and sense of agency. Therefore, paying attention to whether and how students participate in small group and pair work is essential to developing and maintaining an equitable math learning community.

The Teacher Reflection Tool for Small Group and Pair Work is designed to help

keep equitable participation of students at the forefront as teachers plan for, and as students engage in, small group/pair work. Using this tool involves a cycle of 4 steps:



## Planning for Small Group/Pair Work

Use the Planning page to intentionally think through how to group/pair students for a particular activity or over a period of time. Consider what arrangement will best support students in moving forward in their math thinking, in developing a positive math identity and status in the classroom, and in fully participating in the work and discourse. Students can be grouped/paired in a variety of ways across different math activities. Students should expect to work with and learn from all their classmates over time.

## Collecting Data on Participation

Use the Collecting Data pages to find out how students are participating and interacting during small group/pair work. Collect data on one or two groups/pairs during one or more lessons or collect data on each group/pair over multiple lessons. Making video or audio recordings of groups as they work is strongly suggested for easiest collection of data.

## Reflecting on the Data

Use the Reflecting page to reflect on the data collected. This includes considering any patterns in participation in regards to students' race, ethnicity, socio-economic status, gender identification, neurological diversity, identified (dis)ability, multilingualism, and/or perceived status in/outside the classroom. Patterns will be more evident after collecting data over a number of days.



## Taking Action Based on Your Reflection

Use the Taking Action page to think about how to incorporate what you are learning into your practice. Brainstorm some ideas. Then choose one or two things to try out. Use the tool to complete another cycle of collecting data and reflecting, this time also looking for effects of the changes made.

**PLANNING:**  
**Equitable Participation in Small Group and Pair Work**

Activity: \_\_\_\_\_ Date: \_\_\_\_\_

As you choose how to group students for this activity, consider what groupings or pairings will best support each student in:

- ▶ making sense of the math and moving forward in their thinking and understanding
- ▶ developing of a positive math identity and positive status in the classroom
- ▶ participating in the work and discourse of a pair or group

Decide how to group students (e.g., teacher choice, random, student choice). Record the groups and your reasoning if teacher choice (e.g., working on similar/different mathematical idea or strategies, how particular students interact or work together, first language is the same/different). Circle the group(s)/pair(s) you plan to observe.

Names of Students in Group/Pair	Reason for Grouping/ Pairing

Names of Students in Group/Pair	Reason for Grouping/ Pairing

**COLLECTING DATA:**  
**Equitable Participation in Small Group and Pair Work**

Group/Pair: \_\_\_\_\_ Activity: \_\_\_\_\_ Date: \_\_\_\_\_

Make one copy of Collecting Data for **each group or pair** you plan to observe. Record your observations in the table below, in a way that works for you. For example, take a video of students working and write notes as you watch or jot observations as the group works and afterwards code the interactions using the words in the parentheses. Collecting data over several days is recommended.

<div>Group Member</div> <div>(use one row per member)</div>	<div>How did <b>this student</b> participate/interact with others?</div> <div>(Worked Independently, Worked Collaboratively, Recorded, Shared Ideas, Asked Questions, Encouraged Others, Built On, Agreed, Disagreed, Ignored, Corrected, Dominated, Told What to do, Didn't Interact, Other)</div>	<div>How did <b>other students</b> interact with this student?</div> <div>(Asked Questions, Encouraged, Built On, Agreed With, Disagreed With, Shared Ideas with, Ignored, Corrected, Told What to do, Other)</div>	<div>What questions/ comments or instructional decisions, if any, did I ask/make with this group?</div>

## **REFLECTING:**

### **Equitable Participation in Small Group and Pair Work**

Reflect on the data you collected about one group or multiple groups. Patterns will be more evident after collecting data over a number of days.

	Who contributed? Who didn't? Did anyone dominate? What types of contributions did students make?	How were students interacting with each other?	What impact, if any, did my instructional decisions have on participation?
What did I find out?			
Are there any patterns related to students' identities, including, but not limited to: race/ethnicity/gender identity/ multilingualism/ neurodiversity/social or academic status?  What could be contributing to these patterns? (e.g., my decisions, my own beliefs/biases, students' status among peers, students' confidence)			
If this is the 2nd or 3rd time going through a cycle what, if any, effect did I see on student participation from the actions I took?			

## TAKING ACTION: Equitable Participation in Small Group and Pair Work

Use the following questions to brainstorm ways to incorporate what you are learning into your practice.

How can I bring unheard voices to small group/pair work? How can I help students feel more comfortable contributing? How can I position students so others see their contributions as valuable?	
How can I help students who have difficulty listening to others, or who dominate small group work?	
How might what I learned affect my future decisions about pairing or grouping students?	
How can I work with the class to further develop agreements and expectations small group/pair work, so students listen carefully to others, contribute thoughtfully, support the contributions of others, and help build a sense of community?	

Choose one or two actions to take:

After taking action, begin another cycle—plan, collect data, reflect, and take action again. As you reflect, look for any effects of your actions on participation.