

Introduction to Group Participation Quizzes Using the Dot Problem

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What is it?	This activity introduces students to a structure that assesses how students work with their group mates.
Rationale/Core Ideas	Assessments should align with and reinforce the core values held in a classroom. If effective groupwork is a core value of a math class, then students should have regular opportunities to practice and be assessed on their ability to work in a group. In <i>Mathematical Mindsets</i> , Jo Boaler speaks to the importance of multidimensional grading that takes into account student behaviors such as “whether they ask questions, show mathematics in different ways, reason and justify, or build on each other’s thinking.”
Student Outcomes	Students become attuned to specific behaviors that facilitate effective groupwork. Students practice staying on task within a group, making sure all students are involved (and no one is left behind), actively communicating and helping one another.
When to Use	Second week of school
Activity/Routine Guidelines	<p>Project the following slide on the screen:</p> <p>“Today we will be assessing you simply on how you work with your groupmates, not on the content. The goal is to make sure everyone is included and feels safe to share their ideas.”</p> <p>Teacher introduces the Group Quiz rubric.</p> <p>Teacher clarifies that his or her main role today is observer, not helper.</p> <p>Students receive a copy of youcubed’s Dot Problem (page 3) <i>or similarly open ended, group worthy task</i>.</p> <p>Teacher gives students 5 minutes to read through the Dot Problem and think individually. Project the following slide:</p> <p>“Take 5 mins. on your own to look through this sheet. What do you notice?”</p> <p>Teacher explains the importance of individual think time.</p> <p>As students work, teacher circulates among the students to observe how they get started on the problem.</p>

	<p>After 5 minutes, project the following slide:</p> <p>“With your group, discuss what patterns you noticed. What do you think figure 36 would look like?”</p> <p>Each student should take 1 minute to share his/her current thinking on the problem before students begin working as an entire group.</p> <p>As students work within their groups, teacher circulates among them.</p> <ul style="list-style-type: none"> ● Take notes of observations using the Teacher Rubric: <ul style="list-style-type: none"> ○ Look for different strategies ○ Look for people who invited others into the conversation ○ Look for people who stepped back ○ Look for positive body language <ul style="list-style-type: none"> ■ Eye contact ■ Turning their paper around for others to see ■ Pointing on others’ papers ● Capture quotes from people: <ul style="list-style-type: none"> ○ Listen for good questions ○ Listen for how people explain their thinking to others ● Find ideas to share for discussion <p>After 10 minutes, students complete a self-assessment using the Group Quiz rubric.</p> <p>Students discuss with their groups how they did meeting their group interaction goals.</p> <p>Teacher shares highlights from his or her observations.</p>
Tips	<p>Although this activity is framed as a “Quiz,” it is really an opportunity for students to work mindfully with their group, practicing intentional strategies that facilitate effective group work. Thus, throughout the activity, the teacher’s language should focus on highlighting and celebrating specific examples of effective group work, rather than focusing attention on the grade or score for the quiz.</p>
How will you know it is working?	<p>Teacher observations using the Teacher Rubric</p> <p>Student self-assessments using the Group Quiz Rubric</p>
Examples & Resources	<p>See it in Action:</p> <p>Middle School Example</p> <p>High School Example</p> <p>Resources:</p> <p>Group Quiz Rubric</p> <p>Teacher Rubric</p>

