

## Indicator C1.1 Student Ownership

Provides learning experiences that enable students to claim ownership of their learning by identifying their own strengths, interests, and needs; setting meaningful and challenging learning goals for themselves; asking for support when needed; and monitoring their own progress.

What Effective Math Teachers Know	What Effective Math Teachers Do	✓ Focus
a. Students benefit from active involvement in their learning goals	<ul style="list-style-type: none"> <li>● Gather student input.</li> <li>● Offer choice (choice of tools and of how to demonstrate understanding).</li> <li>● Ask students to describe what success with a task would look like.</li> </ul>	
b. Students who feel connected to staff and peers and feel valued are more likely to take academic risks such as sharing what they don't know, venturing conjectures, and tackling challenging problems with persistence.	<ul style="list-style-type: none"> <li>● Acknowledge and value students' prior experiences and culture.</li> <li>● Respect students as peers and adults.</li> <li>● Generate respectful dialogue and interaction among students.</li> <li>● Value the diversity of students rather than consider differences as deficiencies.</li> </ul>	
c. In order to continue to grow and to genuinely model a mindset of continual growth, teachers need to actively seek feedback on their own practice.	<ul style="list-style-type: none"> <li>● Seek formal feedback through the EGE Cycle (see Standard C2: Reflective Practice).</li> <li>● Seek informal feedback from colleagues.</li> <li>● Seek feedback from students (both formal and informal).</li> </ul>	
d. Relevant materials and lessons are engaging for students and take the emphasis off memorization, which leads to a fixed mindset.	<ul style="list-style-type: none"> <li>● Use math tasks that allow multiple entry points and various strategies to get to a solution.</li> <li>● Build on examples students come across in their lives or that they have explicitly talked about</li> <li>● Use real-life math tasks that have multiple solutions.</li> </ul>	
e. Using concrete materials is valuable in gaining conceptual understanding, which leads to a growth mindset.	<ul style="list-style-type: none"> <li>● Offer a variety of culturally-relevant materials.</li> <li>● Model use of concrete objects (e.g., tiles, strips of paper) or virtual manipulatives to show conceptual understanding.</li> </ul>	
f. Flexibility with numbers is important for conceptual understanding and procedural fluency.	<ul style="list-style-type: none"> <li>● Shy away from decontextualized, timed math fact checks.</li> <li>● Use visuals (number lines, arrays, area models, etc.).</li> <li>● Make your mental math explicit and expect the same of students.</li> <li>● Ask for several ways to solve the same problem.</li> <li>● Expect students to articulate their reasoning, whether right or wrong.</li> </ul>	
g. Heterogeneous cooperative groups give all students the opportunity to learn.	<ul style="list-style-type: none"> <li>● Plan group roles.</li> <li>● Provide open-ended tasks.</li> <li>● Offer a choice of tasks.</li> </ul>	
h. There are pervasive and damaging stereotypes related to math abilities that must be actively and continually addressed.	<p>Model and talk about:</p> <ul style="list-style-type: none"> <li>● Math is more than just calculation.</li> <li>● Math can be understood by everyone.</li> <li>● Race, gender, and ethnicity do not predispose people to success in math and math-focused careers.</li> <li>● We are all lifelong learners of math.</li> </ul>	

Notes to self