

Indicator C1.3 Lifelong Learning

Incorporates strategies that assist students in becoming self-reliant, independent learners who are motivated and adequately prepared for postsecondary education and careers.

What Effective Math Teachers Know		What Effective Math Teachers Do	✓ Focus
a. Knowledge of and access to independent study resources for students can maximize the learning of motivated students.	<ul style="list-style-type: none"> • Seek mentors and colleagues with whom they can share ideas, ask questions, and receive feedback. • Know quality sources of classroom and independent study resources. • Create a classroom or program website to compile resources for study and practice as well as sources of additional materials. 		
b. Having confidence in their ability is one of the things that will help students to continue learning.	<ul style="list-style-type: none"> • Give specific feedback statements, rather than empty phrases such as “good job” (e.g., “You created a simpler version of the problem and used what you learned from that to solve this. That’s a great problem-solving strategy.” or “You identified a pattern in this table and you generalized it to fit examples not listed on the table. That’s a skill for algebra.”) • Acknowledge classroom examples of effort. 		
c. Extrinsic rewards given for tasks that require perseverance hinder students’ motivation.	<ul style="list-style-type: none"> • Focus on the inherent value of the task (e.g., developing understanding of a math concept, using math for personal decision making, the satisfaction of solving a math challenge). 		
d. Embrace the multi-level classroom.	<ul style="list-style-type: none"> • Choose problems that can be accessed in multiple ways (using concrete objects and drawings, basic math, algebraically). • Allow time for conversation during struggle with challenging problems. • Ask and encourage students to defend their reasoning using visual representations and in writing. • Challenge students to connect visual representations to procedures with which they are familiar. • Expect students to share and listen to others’ strategies. 		
e. Practicing the CCSSAE Standards for Mathematical Practices is not only what mathematically proficient people do, the same skills prepare students for the workplace and lifelong learning.	<ul style="list-style-type: none"> • Create a classroom environment where struggle is expected, making mistakes is okay, and respectfully critiquing others’ work is appreciated. • Help students learn to form an argument and dispute the claims of others. • Provide opportunities for students to examine solutions that are incorrect and explain what was wrong. • Ask students to make sense of a relationship between quantities in a problem. 		
f. Learning is a continuum rather than defined by the beginning and end of a course.	<ul style="list-style-type: none"> • Teach students how to persevere with challenging problems, gather information, and use math to make decisions. 		

Notes to self