

Teacher Guide: Normalizing Belonging Uncertainty

Time: 30–40 minutes

Audience: Teachers of secondary math students

Research citation

- Walton, G. M., & Cohen, G. L. (2011). A brief social-belonging intervention improves academic and health outcomes of minority students. *Science*, 331(6023), 1447–1451.

Materials and supplies

- Sample letter (original copy attached)
- Blank sheets of paper
- Pens/pencils for writing (or computers)

Research background

- Belonging is about subjective perceptions of acceptance within groups.
- Student's lives are rich with complex social interactions and relationships. Belonging is universally important, and humans are “hardwired” to connect with others.
- A low sense of belonging impacts achievement and can widen achievement gaps. Math is one subject area in which achievement gaps are most persistent.
- Interacting with older students who have been through similar preparation in math can increase performance and enhance feelings of connectedness, because students learn that it's normal to struggle and encounter challenges.
- Students are more motivated to learn when they believe their outcomes can change through effort.
- This exercise is particularly beneficial for students from underrepresented groups, and/or who are negatively stereotyped in math. Students from these specific populations may experience more worries about their belonging in the math classroom. The activity discourages students from viewing their struggles as proof that they, or people like them, don't belong.
- This is an exercise in which students learn about how older students struggled during their own experiences in school and eventually recovered, which has been shown to help promote a sense of belonging. The exercise has been adapted for secondary classrooms.
- This version involves exchanging written letters, but you are encouraged to use a variety of media (e.g., video), or you can even host in-person visits from older students (with some coaching to ensure the message they deliver is consistent with the goals of this activity).

Timing	Topic/Steps/Activities	Teacher Notes
3 minutes	<p>Transition into activity</p> <ol style="list-style-type: none"> 1. Ask students to turn their attention to you as you guide them through an activity. <p><i>Suggested script</i></p> <ul style="list-style-type: none"> • We're going to read some letters from high school students who were once in the [X] grade like you. You'll see that school was not always easy for them, and you'll hear some examples of how they overcame their challenges. 	<p><i>Students should be seated individually with enough space to write privately. Students should have room to work in pairs and to stand and move around the room.</i></p> <p><i>In general, activities like this are most beneficial if they are not presented as "interventions." Rather than saying this activity is intended to boost a sense of belonging, emphasize the importance of learning from others and being open about what's challenging.</i></p> <p><i>Note that the setup for the activity does not explicitly emphasize math, so as not to reinforce the idea of math as something to be feared. The content of the letters/messages, however, should include some explicit examples of overcoming struggles with math.</i></p>
10 minutes	<p>A message from the future</p> <ol style="list-style-type: none"> 1. Read an example letter from a high school student to a middle school student. You may wish to have a volunteer read the letter aloud, or you can pass out copies to every student to read individually. 	<p><i>You may wish to ask previous students to write letters as examples, or you may use the provided example (see attached). Edit it to best serve your needs. You are also encouraged to use mixed media, (e.g., videos), or you can even arrange for older students to visit in-person.</i></p> <p><i>The more personal and authentic the messages, the better.</i></p> <p><i>Ensure that the messages include a component about overcoming struggles with math.</i></p>
10 minutes	<p>Group discussion</p> <ol style="list-style-type: none"> 1. Discuss the following questions as a group. 	<p><i>The second question (b) should be the main focus of discussion. Encourage students to think about how their own experiences have been consistent with the content of the letter(s). That is, a situation in</i></p>

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	<ul style="list-style-type: none"> a. <i>How did it feel to hear this letter?</i> b. <i>Have you ever had similar experiences or felt this way about school?</i> c. <i>What were the important messages in the letter?</i> 	<p><i>which they experienced a challenge or struggle, but with time things improved.</i></p>
10 minutes	<p>Individual writing exercise</p> <ol style="list-style-type: none"> 1. Direct students to their seats and ask them to take out a piece of paper and a writing utensil (or use computers, if available). 2. When everyone is ready, ask them to reflect on their own experiences and then write for 10 minutes using one or both of the following prompts: <ul style="list-style-type: none"> a. <i>Think of a time when you struggled with something. This could be a time you felt particularly challenged in learning a new topic or when you struggled at school in some other way.</i> b. <i>Imagine you are writing a letter to an incoming X grader. Write to this student about how you persisted despite those struggles and tell them how things got better with time. What advice would you give to help someone if they are ever in such a situation?</i> 	<p><i>To help students internalize the activity more deeply, this writing exercise directs students to 1) reflect on how the messages from the older students apply to their own lives, and 2) “pay it forward” to others with advice on how to cope if they are in similar situations. This helps students see themselves as benefactors instead of beneficiaries.</i></p> <p><i>This writing exercise can be used in addition to the whole-group discussion or instead of the discussion, if time is limited.</i></p> <p><i>You should decide with your students and colleagues whether to share the letters with incoming students, have students use them to collaborate on and design a “greeting” for incoming students, or to just let your students keep them to read again later.</i></p>

Normalizing uncertainty student handout

Hi, my name is _____.

When I started pre-algebra, I felt like I was in way over my head. It seemed like nothing in class was making sense at first. And I had a really hard time asking for help, because I had always done pretty well in math and I didn't want my teacher to think I was dumb.

But after I got a D on the first quiz, I finally asked my friend if he wanted to study together. That really helped. I felt better when I realized he was having a hard time, too. Eventually I started to tell myself, "This is hard, but that's okay. It's meant to be!"

So, my advice is don't feel bad for admitting there's a lot left to learn. And don't be afraid to ask for help. You will get stuck and you will need help.