

Chapter 1: Breaking the Cycle

In Chapter 1, I talked about the relationship between how we were taught math and how we teach math. In your group, it's essential you create a safe climate built around trust and honesty in order to discuss these issues. A small percentage of teachers feel fine about math or enjoyed it as students, but most teachers have had at least a mix of negative and positive experiences, and they may still feel shame, hurt, or embarrassment. You can help them quite a bit by giving them a supportive venue in which they can address those feelings and move on productively.

I've suggested two different starting activities below. Each encourages teachers to recall their experiences. We bring these stories into classrooms with us, whether or not we realize it.

I would recommend that teachers do either the math autobiography or the word clouds, but not both because they might feel redundant.

Discussion Questions

Page 5 It's worth focusing everyone's attention on the mathematicians' word cloud. Any surprises? Give colleagues a chance to discuss or write about their reactions. Is there a word that speaks to them? They might want to choose one word that doesn't currently feel like it's part of their math classroom but should be. Think about how to incorporate that one word this year.

Page 8 Ask colleagues to take note of their feelings about the three approaches in the book (study of mathematicians, learning from other teachers, engaging with mathematics). Which approach are they most comfortable with? Excited about? Wary of? Why? Ask what would help them open themselves to all three.

Activities

Page 5 **Math Autobiographies**

Some teachers (and students!) have found it helpful to write a math autobiography. The basic structure is that each person writes his or her personal story with mathematics. You can ask participants to start with their earliest memories of math and work toward the present day. Their writing does not need to be exhaustive but should include the memories that made a big impact on them. I've posted a few examples at tjzager.com and stenhouse.com/becomingmathteacher.

Page 5 **Word Clouds**

Take a long look at the word clouds in Figures 1.1 and 1.2. Discuss or write about them as feels natural. In the book, I said, "Admittedly, these images describe the extremes of a continuum, and I expect most of our personal mental maps about mathematics fall somewhere in between." It can be helpful for teachers to create their own word clouds to examine their associations. Give every participant a blank piece of paper with the word "math" printed in the center (make your own or use the one provided at tjzager.com), and ask them to jot down words or images or passages of text in response.

These word clouds and autobiographies are highly personal, so don't expect people to share, but certainly welcome anyone who wants to talk.



Chapter 1: Breaking the Cycle (continued)

Additional Resources

At stenhouse.com/becomingmathteacher and at tjzager.com, you'll find a collection of supplemental resources that may come in handy for further thinking and discussion. I keep the links fresh, so the contents will change, but you will certainly find:

- A link to a powerful poem from Jane Kenyon: "Trouble with Math in a One-Room Country School"
- A video of a short talk I gave about the ideas in this chapter
- Blog posts and videos about people's experiences in math that may spark productive discussion

