

“ What I love about Mathshare is that for every student, there’s a benefit, and it’s a totally different benefit. We can use it in a group setting, but it’s individualized enough to support what each student needs. ”

—BETH POWELL, MATH SPECIALIST, MY CITY SCHOOL, SAN FRANCISCO, CA



CHALLENGE

Beth Powell serves students in grades 5-8 who have mild to moderate learning disabilities. Some have processing speed and working memory issues, most have math anxiety, and some have difficulty even being in class. She also has some students who are very strong in math, but they memorize everything and don’t understand the process. Most students are two to three years behind, and pre-algebra is a nightmare for them. Challenges her students face doing math:

- Illegible handwriting
- Students miscopy problems from textbook to paper
- Students miscopy from one step to the next
- Students have difficulty breaking problems down into steps
- Students are afraid to take risks and try things
- Students are still working on foundational skills (e.g., multiplication facts) but need to move on to grade-level content

SOLUTION

Beth uses customized interventions based on students’ deficiencies. For example, everyone is working on integers, but some might be doing hands on activities, some are playing a math game, some are having group instruction, and some are working independently. The goal is to get them into the textbook. All students work on the same topic but at different levels.

Beth has been using Benetech Mathshare since spring, 2018. Mathshare forces students to track their thinking step by step. They know they have to show their work, but sometimes they get lazy when using paper and pencil, and they can’t do that with Mathshare. Students have to explain the strategy they are using and why, so the prompt in Mathshare is helpful. Other features that are helpful:

- Speech-to-text – the option to explain steps verbally instead of written is profound
- Legibility aspect
- Step-by-step linear format
- Sketchpad capability

Beth appreciates the open curriculum feature that allows her to enter her own math problems and send customized problem sets to individual students. She also likes the fact that it is free, open source, and can be integrated with other platforms and tools like Google classroom.

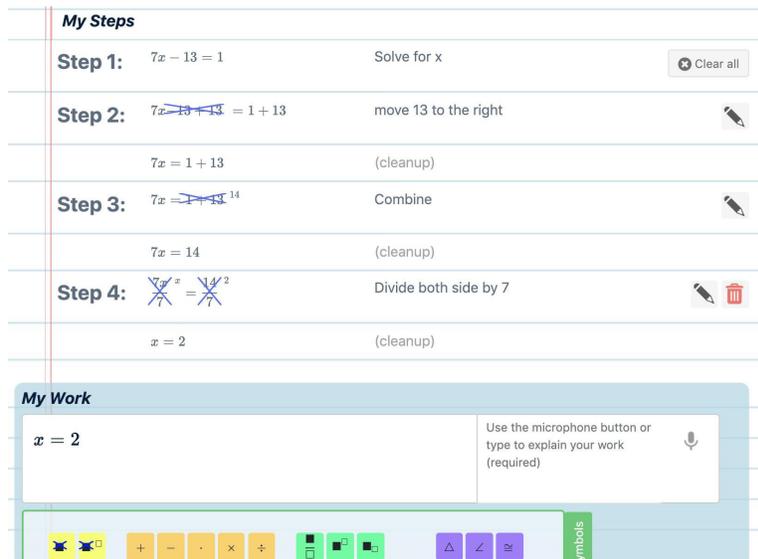
IMPACT

Examples of three students who benefitted from Mathshare:

- Eighth grade girl, working on algebra, doesn't want to take the time to write things down. She tried Mathshare and said, "Oh my gosh, this is the best thing ever. Can I have this when I'm not at school?" It is an excellent way for her to capture her thinking in a clean format when she is having so much confusion.
- Sixth grade girl with attention issues doubts herself and answers questions differently each day. Mathshare forced her to commit to her answers. Since it's not a human, she had to be definitive. She liked how the tool didn't judge her. Knowing that Mathshare required her to explain her steps, it forced her to her to pay attention to the "why."
- For students with dyslexia, Mathshare really helps with penmanship issues. For a seventh grade boy with severe dysgraphia, the speech-to-text feature forced him to speak clearly and carefully, and it was fun for him to see his work clean and organized.

"With students who have learning differences, you can't teach the shortcut because they might not understand it and probably won't remember it. Because Mathshare forces them to explain their thinking each time, they are integrating their learning every time they use it," says Beth.

Try Mathshare today!



Benetech Mathshare is an inclusive, problem-solving tool that makes learning easier. With Mathshare, students can break problems into parts, solve them step by step, and take notes to show their reasoning. This makes it easier for students to stay focused and for teachers to follow their students' thinking. [Mathshare.benetech.org](https://mathshare.benetech.org).

Benetech is a nonprofit that empowers communities through software for social good. Our work transforms how people with disabilities read and learn, makes it safer for human rights defenders to pursue truth and justice, and connects people to the services they need to live and prosper. We're constantly pursuing the next big social impact.