

Using an Automated Writing Feedback Tool: Insights on MI Write for Students and Families

Middle school students and their families can use this brief to learn about MI Write, an automated writing feedback tool that supports student writing in the classroom. The brief summarizes key takeaways from a study of MI Write in grade 7 and 8 English language arts classrooms during the 2021–2022 school year. Read more about the [study methods](#).

The MI Write Tool

[MI Write](#) is an automated writing feedback tool designed to support instruction and improve students' writing. In MI Write, teachers assign writing practice, and students plan, draft, and revise their essays. After students submit their drafts, MI Write provides text-embedded writing and spelling feedback. It also provides a report with scores and feedback on the following six traits of writing: development of ideas, organization, style, word choice, sentence fluency, and conventions. Although not a standard feature of MI Write, during the study coaches provided monthly and ad hoc support to teachers. Research suggests that students' writing skills improve when they have frequent opportunities to practice and receive clear feedback on their writing and revisions.¹

Key Takeaways

- / Many students and teachers thought MI Write was useful for improving student writing, and about half found the tool easy to use.
- / MI Write likely improved students' mindsets about writing and potentially likely improved students' writing confidence.
- / The effects of MI Write on the quality of students' writing varied.
- / Students and teachers found MI Write suitable for students with diverse abilities and identities.

Implementation Context

The study took place in New Jersey and North Carolina in one rural, one urban, and one suburban school district during the COVID-19 pandemic. The study team randomly assigned teachers to either have access to MI Write (called the intervention group) or teach using their typical methods (called the comparison group). About 80 percent of students in the samples used for analysis were Black, Latino, and/or experiencing poverty, which were communities in focus for this study. The study team used information on student eligibility for free or reduced-price lunch through the [National School Lunch Program](#), which is a common measure of students experiencing poverty.

Instruction in all districts was in person, but two schools required remote, asynchronous learning for two weeks in spring 2021 because of COVID-19 outbreaks. Although teachers and students in the intervention group used MI Write, no teacher or student completed all intended activities. For example, the MI Write team and study researchers requested teachers assign at least eight essays (each with two required revisions), eight pre-writing activities, eight interactive lessons, and three peer reviews for students to complete in MI Write during the study. However, only 47 percent of teachers assigned all eight essays, and 4 percent of students completed eight essays in MI Write. On average, teachers assigned 7.6 essays and students completed 3.6 essays. All teachers assigned at least one essay, and 87 percent of students completed at least one essay.

Samples Used for Analysis



Student surveys: 1,260 (intervention); 1,227 (comparison)



Student essays: 1,260 (intervention); 1,227 (comparison)



Teacher surveys: 19 (intervention); 18 comparison



Teacher interviews: 9 (intervention)

KEY TAKEAWAYS

1 Many students and teachers thought MI Write was useful for improving student writing, and about half found the tool easy to use.

Within classrooms that had access to MI Write, 61 percent of surveyed students and 84 percent of surveyed teachers reported that the tool helped students become better writers. Students rated the tool highest in helping them revise their writing (87 percent), know what parts of their writing they should improve (83 percent) and keep track of their progress in writing (84 percent).

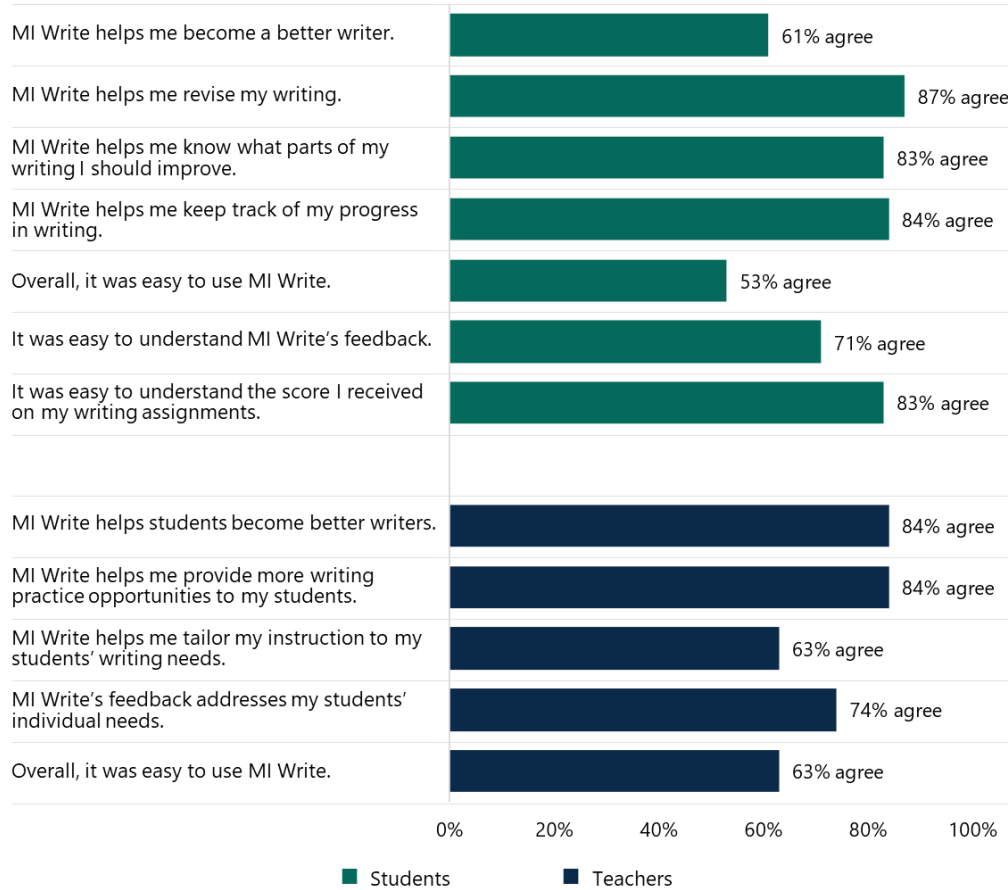
More than three-quarters of surveyed teachers (84 percent) felt MI Write helped them provide more writing practice opportunities to their students. In addition, many teachers agreed or strongly agreed that MI Write helped them tailor their instruction to students' writing needs (63 percent) and that the tool's feedback addresses students' individual needs (74 percent). Similarly, in interviews, teachers said MI Write was useful in helping them identify areas of focus for writing lessons and provide tailored comments for individual students on their writing.

In addition, about half of surveyed students (53 percent) and almost two-thirds of teachers (63 percent) found MI Write easy to use. More than two-thirds of students said they could easily understand MI Write's feedback (71 percent) and the score they received on their writing assignments (83 percent).

[Students] were asking more informed questions [like], "I understand this, but I don't understand that, can you explain it to me?" So [MI Write] helps us [teachers] monitor, but it also helped the students monitor themselves.

— Grade 7/8 teacher

Percentage of students or teachers who agreed or strongly agreed with the following statements:



Source: Student and teacher surveys.

2 MI Write likely improved students' mindsets about writing and potentially likely improved students' writing confidence.

The study findings suggest that MI Write likely increased how much students believe they can successfully complete writing tasks (82 percent chance of a positive impact) and how much they believe they can follow writing conventions (80 percent chance). It was potentially likely that MI Write had a positive impact on students' confidence in their ability to develop writing ideas (73 percent chance), and it was unlikely that MI Write affected students' enjoyment of writing (46 percent chance of a positive impact).

In interviews, teachers reported that other classroom demands and changes in policy related to COVID-19 made it so that they could not consistently use the MI Write tool as often as the study intended. As a result, these findings present early evidence on how MI Write affects students' writing confidence, mindsets, and enjoyment; there is more to learn on how MI Write affects student perceptions on writing during a school year in which COVID-19 did not disrupt the classroom.

MI Write likely improved how much students believe they can:

- / Successfully complete writing tasks
- / Follow writing conventions

The tool potentially likely improved student confidence in:

- / Developing writing ideas

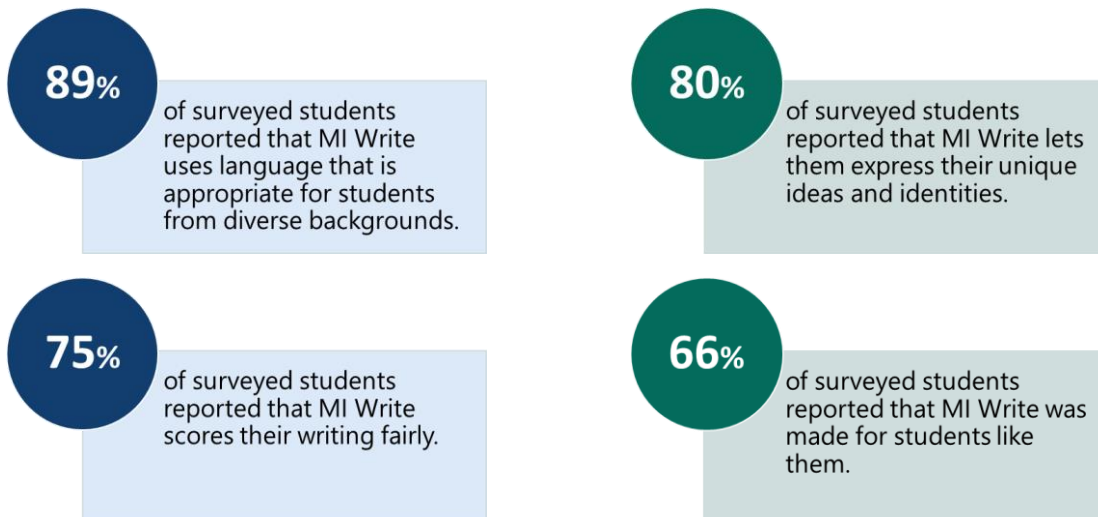
3 The effects of MI Write on the quality of students’ writing varied.

The study’s findings on how MI Write affects the quality of student writing varied across the study districts. MI Write likely improved student writing quality (99 percent chance) in the district that used MI Write most often. However, these improvements could also be due to district factors other than the use of MI Write that the study was not designed to examine.

Several barriers prevented students and teachers from using MI Write more consistently. The study took place during the COVID-19 pandemic, and students and teachers in MI Write classrooms used the tool less often than intended. Several teachers were also learning a new English language arts curriculum in their classrooms during the same year (see [Study Overview box](#)). As such, these findings present early evidence; MI Write and its research partners are continuing to learn about how the tool affects student and teacher outcomes in different contexts.

4 Students and teachers found MI Write suitable for students with diverse abilities and identities.

More than three-quarters of surveyed students who used the MI Write tool agreed or strongly agreed that the tool uses language that is appropriate for students from diverse backgrounds (89 percent) and allows students to express unique ideas and identities through writing (80 percent). Many students also reported that the tool scores their writing fairly (75 percent) and that the tool “was made for students like me” (66 percent).



Similarly, teachers who participated in interviews also expressed that MI Write allowed students to bring their diverse racial, ethnic, and cultural backgrounds to their writing. One grade 8 teacher reported that MI Write “leveled the playing field” for diverse learners and gave all students “the same jumping off point.”

The study team also explored whether student views of MI Write’s cultural appropriateness were different based on students’ identities and background characteristics, such as their race, ethnicity, disability status, English proficiency level, and economic status. Although there were some differences in student views within groups, at least half of students in each group agreed or strongly agreed MI Write was culturally appropriate (53–65 percent across groups).

STUDY OVERVIEW

Study design. The study team randomly assigned 39 English language arts teachers from three school districts either to have access to MI Write (intervention group) or to teach using their typical methods (comparison group). The team then compared student and teacher outcomes for the intervention group to outcomes for the comparison group. The study included about 2,500 students in grades 7 and 8 across 14 schools. Read more about the [study methods](#).

Data and methods used for the brief. Not all study participants completed all data collection activities. For impact analyses, the study team analyzed surveys and writing assessments from 1,260 students and 19 teachers in the intervention group and 1,227 students and 18 teachers in the comparison group. The student samples used for descriptive analyses of intervention group surveys ranged from 1,182 to 1,187 depending on the survey measure because some students left questions blank and not all survey questions pertained to all students. The study team also conducted individual or small-group interviews with nine teachers in the intervention group and reviewed MI Write usage data and coaching logs. To measure the impacts of MI Write, the team compared outcomes for the intervention and comparison groups after accounting for differences between the two groups at the beginning of the study. Using the impact estimates and evidence from prior studies, the team calculated the probability that the true impacts of MI Write were positive. For reporting findings in the briefs, we considered a positive impact likely if the probability that the impact was greater than zero was 75 percent or above; potentially likely if it was between 61 and 74; and unlikely if the probability was 60 percent or less. The team also calculated summary statistics from the survey and usage data and identified themes in the qualitative data.

Implementation context. The study took place in New Jersey and North Carolina in one rural, one urban, and one suburban school district during the COVID-19 pandemic. Instruction in all districts was conducted in person, but two schools required remote, asynchronous learning for two weeks in spring 2021 because of COVID-19 outbreaks. School districts provided students with laptops and internet access, which are required to use MI Write. The intervention-group teachers and students used MI Write for the first time during the study, and 13 of the 19 teachers also used a curriculum with its own technological writing platform, StudySync. For 10 of those teachers, it was also their first time using StudySync. About 80 percent of students in the samples used for analysis were Black, Latino, and/or experiencing poverty (as measured by eligibility for free or reduced-price lunch), which were communities in focus for this study.

Level of implementation. Although teachers and students in the intervention group used MI Write, no teacher or student completed all intended activities. Teachers were requested to attend one half-day initial training on how to implement the tool in their classrooms. Although not a standard feature of MI Write, coaches also provided monthly and ad hoc support to teachers during the study, including eight monthly coaching sessions to advise teachers on how to use the tool to improve their instructional practices. The MI Write team and study researchers requested teachers assign at least eight essays (each with two required revisions), eight pre-writing activities, eight interactive lessons, and three peer reviews for students to complete in MI Write during the study. The MI Write team and study researchers also requested that teachers use an annotation tool to provide supplemental writing feedback. On average, teachers assigned 7.6 essays and students completed 3.6 essays in MI Write and completed 1.3 essays with at least two revisions. Forty-seven percent of teachers assigned all eight essays, and four percent of students completed eight essays. All teachers assigned at least one essay, and 87 percent of students completed at least one essay.

Read more briefs in this series here: [Evaluating the Development of Secondary Writing Teaching & Learning Solutions](#).

The MI Write team (Corey Palermo, Ph.D., Halley Eacker, Ph.D., and Jessica Coles) and University of Delaware evaluator (Joshua Wilson, Ph.D.) designed and conducted the study with technical assistance from Mathematica ([Ryan Ruggiero](#), [Lindsay Fox](#), and [Megan Shoji](#)). Mathematica ([Connor J. Rooney](#), [Adam Dunn](#), and [Marykate Zukiewicz](#)) wrote the brief with contributions from the MI Write and University of Delaware teams. [Megan Shoji](#) reviewed the content and provided feedback. This publication was prepared for the Bill & Melinda Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

Interested in implementing MI Write in the classroom? Email info@miwrite.net.

Endnote

¹ Graham, S., Hebert, M., & Harris, K. R. (2015). Formative assessment and writing: A meta-analysis. *Elementary School Journal*, 115(4), 523–547; Kellogg, R. T., & Whiteford, A. P. (2009). Training advanced writing skills: The case for deliberate practice. *Educational Psychologist*, 44(4), 250–266; Tehrani, F. A. (2018). Feedback for writing or writing for feedback? *Journal of Language and Linguistic Studies*, 14(4), 162–178.

Let's Progress Together. Contact...