

Teaching and Learning Writing with MI Write: Insights for School and District Leaders

This brief aims to provide middle school and district leaders with information that can inform their decision to use automated writing feedback tools like MI Write. 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 and provides strategies for school and district leaders to support using MI Write. 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 then 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

- / MI Write likely improved teachers' confidence in teaching writing and students' confidence as writers.
- / MI Write increased teachers' use of evidence-based writing instruction but had inconsistent impacts on the quality of students' writing.
- / Many students and teachers found MI Write suitable for students with diverse abilities and identities.
- / Many teachers found MI Write easy to use but had mixed reactions to its automatic scoring reports.
- / Teachers reported that support from coaches, time to plan and carry out writing instruction, and integration of the tool with the writing curriculum shaped their use of MI Write.
- / The approximate cost to implement MI Write for this study was \$16.95 per student, including software licensing fees and teacher training offered by MI Write.

Implementation Context

The study took place in one rural, one urban, and one suburban school district during the COVID-19 pandemic. The study team randomly assigned English language arts teachers to either have access to MI Write (intervention group) or teach using their typical methods (comparison group). Intervention-group teachers and students used MI Write for the first time during this study. 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.

Although teachers and students in the intervention group used MI Write, no teacher or student completed all intended activities. The MI Write team and study researchers requested teachers assign and students complete at least eight interactive lessons, pre-writing activities, and essays (each with two revisions), and at least three peer reviews. On average, teachers assigned 7.6 essays and students completed 3.6 essays in MI Write. The team also requested teachers attend monthly coaching sessions and, in spring semester, use the annotation tool to supplement feedback on all submitted essays. Teachers attended 5.8 of 8.0 coaching sessions on average, and no teacher used the annotation tool for all spring essays.

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 MI Write likely improved teachers' confidence in teaching writing and students' confidence as writers.

The study findings suggest that MI Write likely improved teachers' confidence in their ability to teach writing after one school year (89 percent chance of a positive impact). Teachers who used MI Write said the tool helped them tailor their instruction to meet students' writing needs (63 percent of surveyed teachers), monitor the progress of individual students (79 percent), and monitor progress of the class as a whole (74 percent).

By the end of the year, [students] were proud of their own accomplishments, how big or how small it was. MI Write was able to show them just by the data.... So at least they had a little bit of confidence in their abilities.

— Grade 8 teacher

MI Write also likely improved students' confidence in their ability to successfully complete writing tasks (82 percent chance of a positive impact). It was also likely that MI Write improved students' confidence in their writing ability among students who were Black, Latino, or eligible for free or reduced-price lunch (76 percent chance).

2 MI Write increased teachers' use of evidence-based writing instruction but had inconsistent impacts on the quality of students' writing.

Teachers who used MI Write reported greater growth in their use of evidence-based strategies to teach writing, such as using the writing process and peer review and providing effective feedback. It is likely that MI Write increased teachers' use of such evidence-based practices to teach writing (79 percent chance).

For the full sample of study classrooms across the three districts, it was unlikely that MI Write improved the quality of students' writing on an end-of-year argumentative essay task (40 percent chance of a positive impact), which raters scored by applying the widely used Smarter Balanced Argumentative Performance Task Writing Rubric. However, results differed among the three school districts in the study. In the district where MI Write usage was the highest, it was likely that MI Write increased students' essay scores (99 percent chance). In the other two districts, MI Write likely decreased writing scores (67 and 99 percent chance of a negative impact). Although MI Write likely improved students' writing quality in the district that used MI Write most often, and likely decreased scores in the districts that used it less often, these changes in scores 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 (see [Study Overview](#) box). Several teachers were also learning a new English language arts curriculum in their classrooms during the same year. 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.



Strategy. Consider piloting MI Write with a smaller group of classrooms or students before using the tool more broadly in your context.²

3 Many students and teachers found MI Write suitable for students with diverse abilities and identities.

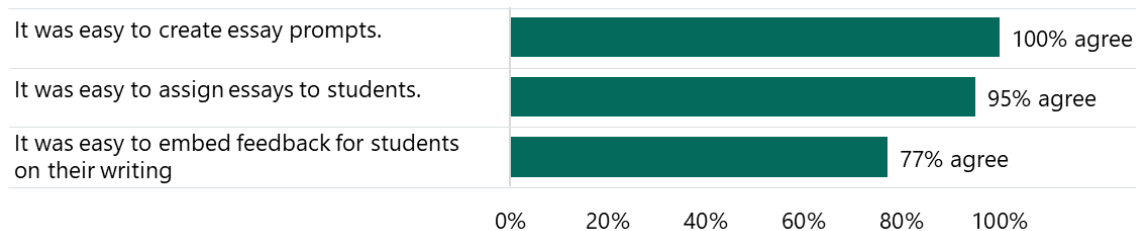
Among those who used MI Write, about half of surveyed students (53 percent) found MI Write easy to use. Students most often found the tool helpful for identifying parts of their writing they should improve (83 percent), revising their writing (87 percent), and tracking their progress in writing (84 percent).

More than three-quarters of surveyed students who used MI Write agreed or strongly agreed that the tool uses language that is appropriate for students from diverse backgrounds (89 percent) and allows for the diverse expression of ideas and identities through writing (80 percent). Many students also reported that the tool scores writing fairly (75 percent) and “was made for students like me” (66 percent). Some teachers reported in interviews that they felt MI Write was useful for students with diverse backgrounds in terms of ability, language, race, and culture. One 8th-grade teacher said MI Write “leveled the playing field” for diverse learners and gave all students “the same jumping off point.”

4 Many teachers found MI Write easy to use but had mixed reactions to its automatic scoring reports.

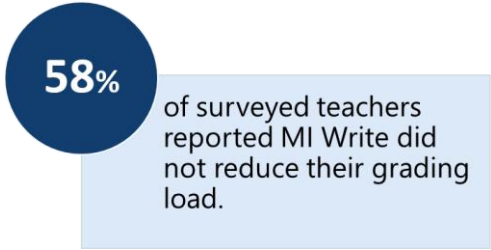

Almost two-thirds of teachers (63 percent) found MI Write easy to use. Most teachers reported it was easy to create essay prompts and assign essay to students, and about three-quarters said it was easy to embed feedback on students’ writing.

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



Source: Teacher survey.

Teachers had more mixed reactions to the automated scoring reports that MI Write provides on student essays. Almost three-fourths (71 percent) of surveyed teachers who used MI Write reported interpreting the scores students received was easy. In interviews, some teachers reported MI Write’s scoring reports helped them identify a focus for their own comments and feedback when conferencing with students. However, more than half of surveyed teachers who used MI Write (58 percent) reported the scoring report did not reduce their grading load. Some teachers reported in interviews they had to rescore students’ essays because the tool did not assess the substance of students’ essays.

Strategy. Communicate to teachers that MI Write’s feedback aims to supplement, not replace, their own feedback on students’ writing, and the tool might not reduce their time spent grading essays but should enable them to focus more time on supporting students on advanced writing skills.

5 Teachers reported that support from coaches, time to plan and carry out writing instruction, and integration of the tool with the writing curriculum shaped their use of MI Write.

About three-quarters of surveyed intervention-group teachers agreed or strongly agreed that the MI Write team’s implementation supports, including initial training and ongoing coaching, helped them integrate MI Write with their instruction. Although not a standard feature of MI Write, during the study MI Write coaches provided monthly and ad hoc support to teachers. Most surveyed teachers (95 percent) agreed or strongly agreed that resources provided during coaching sessions were useful. However, 42 percent of teachers agreed or strongly agreed that coaching sessions did not fit easily into their schedules.



Nearly half of surveyed teachers (47 percent) agreed or strongly agreed that not having enough time for writing in their daily schedule was a barrier to using the tool. As one 8th-grade teacher explained, “The number one barrier is time for writing instruction in my daily schedule.... All these different things like district assessments, exams, grades ... and all these different duties made it a timing issue as well.”

I think that the lack of time and the curriculum that we have make it difficult to utilize this program ... and the fact that we have our students writing essays once a marking period... not once a month.

— Grade 8 teacher

About half of surveyed teachers (47 percent) reported that lack of alignment between MI Write and their writing curriculum kept them from more consistently using the tool. In interviews, some teachers reported their English language arts curriculum did not prioritize writing practice as much as MI Write. This misalignment made it difficult to keep up with the study’s usage expectations, and some teachers fell behind in their curriculum. For example, in one district, a teacher reported they typically assigned writing-process assignments—which require a cycle of pre-

study’s usage expectations, and some teachers fell behind in their curriculum. For example, in one district, a teacher reported they typically assigned writing-process assignments—which require a cycle of pre-

writing, drafting, and multiple revisions—only once a marking period. The study, however, required monthly writing-process assignments in MI Write.



Strategy. Collaborate with the tool developer to identify professional development opportunities and resources teachers can use. Give teachers time before the school year to identify ways to integrate MI Write into their teaching practice. Review the English language arts curriculum to ensure it includes a focus on writing and provides time for teachers to model the writing process before integrating MI Write.

6 The approximate cost to implement MI Write for this study was \$16.95 per student, including software licensing fees and teacher training offered by MI Write.

The estimated cost for this study included a per-student licensing fee of \$8 and training and coaching for intervention-group teachers. Teachers received access to the tool and MI Write’s implementation supports: one half-day session to demonstrate how to use the platform and three hour-long, virtual sessions during the school year focused on how to incorporate peer review of students’ writing, how to provide effective feedback to students about their writing, and other aspects of teachers’ writing instructional practice. Teachers also had access to resources from MI Write, such as sample lesson plans. Although not a standard feature, during the study the MI Write team offered monthly, small group coaching sessions for teachers to discuss implementation and classroom integration strategies and technical issues. The estimated cost does not include the cost for schools to provide access to computers and the internet or the cost of staff hours for teachers to attend training.

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 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. A negative impact corresponds to the probability that the impact was at least -0.05 standard deviations. 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 ([Kaleen Healey](#), [Adam Dunn](#), and [Marykate Zukiewicz](#)) wrote the brief with contributions from the MI Write and University of Delaware teams. [Megan Shoji](#) and [Virginia Knechtel](#) 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.

Endnotes

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.

² Users might find Mathematica's [e2i Coach](#) useful for assessing a program's effectiveness in their context.

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