

Teaching and Learning Writing with Ecree: Insights for School and District Leaders

This brief aims to provide information to school and district leaders that can inform their decision to use automated writing feedback tools like Ecree in middle and high schools. The brief summarizes the experiences of students and teachers who used Ecree in grade 8–11 English language arts classrooms during the 2021—2022 school year and provides strategies for school and district leaders to support using Ecree. Read more about the [study methods](#).

The Ecree Tool

[Ecree](#) is a digital writing tutor that provides formative feedback to students on their drafts of argumentative and personal narrative essays, and scores to teachers summarizing students' performance. Ecree's feedback on grammar, style, vocabulary, organization, argumentation, and analysis aims to help students improve their drafts and hone their writing skills as they practice. 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

- / Ecree likely improved the quality of students' writing, especially for students with less advanced writing skills at the start of the school year.
- / More than half of surveyed teachers reported Ecree was useful to help students improve their writing, but some students may be overwhelmed by the feedback.
- / About half of surveyed students reported Ecree was easy to use and helped improve their writing.
- / Teachers used Ecree less than intended, and some reported they did not have enough time to learn Ecree and integrate it with their instruction.
- / Districts' cost for use of Ecree depend on implementation and support needs and the price per student would likely be lower for larger districts.

Implementation Context

The study took place in Alabama and North Carolina in two suburban school districts during the COVID-19 pandemic. The study randomly assigned teachers to either have access to Ecree (intervention group) or teach using their typical methods (comparison group). Both districts conducted instruction in person, but some classrooms in each district had to pivot at times to virtual instruction because of COVID-19 outbreaks. School districts provided students with laptops and internet access, which are required to use Ecree. About a quarter of students in the samples used for analysis were Black or Latino, which were communities in focus for this study.

Samples Used for Analysis



Student surveys: 368 (intervention)



Student essays: 247 (intervention); 283 (comparison)



Teacher surveys: 17 (intervention)



Teacher interviews: 7 (intervention)

KEY TAKEAWAYS

1 Ecree likely improved the quality of students' writing, especially for students with less advanced writing skills at the start of the school year.

The study findings suggest that Ecree likely improved the quality of students' writing (79 percent chance of a positive impact) as measured by scores on an end-of-year argumentative essay writing task, which raters scored by applying the widely used Smarter Balanced Argumentative Performance Task Writing Rubric. The study findings suggest that Ecree likely improved students' ability to clearly and effectively organize their essays (80 percent chance) and their use of supporting evidence (85 percent chance). The study findings also suggest that Ecree potentially improved students' command of English language conventions (66 percent chance).

However, results differed for students who had more and less advanced writing skills at the start of the school year. Ecree likely improved writing quality for students who started with less advanced writing skills (86 percent chance of a positive impact). For students who started with more advanced writing skills, Ecree was unlikely to improve writing quality (46 percent chance).

2 More than half of surveyed teachers reported Ecree was useful to help students improve their writing, but some students may be overwhelmed by the feedback.

Within classrooms that had access to Ecree, more than half (59 percent) of surveyed teachers agreed (53 percent) or strongly agreed (6 percent) that Ecree was a useful tool to help students improve their writing. Four interviewed teachers reported they used Ecree data to identify areas where students struggled and that it lessened their grading workload. For example, three

59%

of surveyed teachers reported that Ecree was a useful tool to help students improve their writing.

There will be a time when 10 students need me, it is little things like "Do I need a comma here?" But Ecree can fill in that gap so then I can help more with the content.

— Grade 11 teacher

interviewed teachers reported that Ecree acted like a teacher's assistant, providing students with help on their writing during class time that normally the teacher would be giving. This gave teachers time and space to provide one-on-one support or to focus on in-depth writing content (as opposed to more basic instruction like helping students with grammar).

However, six interviewed teachers reported that their students felt overwhelmed, frustrated, or confused by aspects of Ecree such as the type of feedback, amount of underlining, and unclear directions. Three grade 8 teachers shared that their students were overwhelmed. Two teachers reported that their

I think [Ecree] may have intimidated them a little bit...it's amazing to me, but they were overwhelmed.

— Grade 8 teacher

students in grades 10 and 11 were confused when first introduced to the tool. One teacher shared that his students in grade 12 understood the feedback more easily than his students in grade 9.



Strategy. Ensure that Ecree is appropriate for the students being served. To do this, schools might pilot the tool with students with different characteristics and receive feedback from them before expanding Ecree’s use. District staff can also coach teachers on how to make feedback more manageable for students by breaking down classroom review of feedback into distinct sessions, each of which focus on a specific writing skill (such as essay organization or use of supporting evidence).

3 About half of surveyed students reported Ecree was easy to use and helped improve their writing.

Within classrooms that had access to Ecree, about half (55 percent) of surveyed students agreed (49 percent) or strongly agreed (6 percent) the tool helped them improve their writing. A similar proportion agreed (49 percent) or strongly agreed (9 percent) that Ecree was easy to use (58 percent in total).

Many teachers and district staff reported that the COVID-19 pandemic posed challenges for writing instruction during the 2021–2022 school year, including student learning loss,



of surveyed students reported that Ecree helped them improve their writing.



of surveyed students reported that Ecree was easy to use.

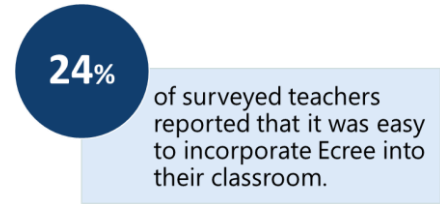
low student engagement, and staffing challenges. These challenges for writing instruction, coupled with challenges specific to using Ecree in classrooms, might have influenced students’ overall experience using the tool. Two teachers also said in interviews they felt they needed to first work on foundational essay writing skills with students before students would be ready to write essays in Ecree because of learning loss from the pandemic. As such, these findings may not reflect how students might experience using Ecree during a typical school year.

4 Teachers used Ecree less than intended, and some reported they did not have enough time to learn Ecree and integrate it with their instruction.

Teachers used Ecree less often than expected, and no teacher or student used the tool as fully as the developer or study researchers intended. Teachers were expected to attend a webinar training and assign at least six essays in Ecree over the school year. Seventy-six percent of teachers attended the training, but teachers assigned an average of 1.5 essays in Ecree during the study, and students completed and revised one essay on average.

According to interviewed teachers, lack of technical integration with other digital platforms they commonly use slowed their implementation of Ecree because they had to figure out workarounds to their normal systems. For example, it was not possible to integrate Ecree directly into one district’s learning management system (Clever and Google Classroom). Instead, teachers had to create separate Ecree accounts for their students, which delayed the start of implementation in those classrooms.

Only about a quarter of surveyed teachers agreed or strongly agreed incorporating Ecree into their instruction was easy, possibly due to the integration challenges and other issues they faced. For example, two interviewed teachers who used Ecree little or not at all cited lack of time in learning how to use Ecree and planning how to integrate it in their teaching as the reason they did not use it more often.



Strategy. Provide technical support to teachers, whether directly or through the tool provider, and communicate clearly with teachers about what resources are available to help them integrate and use Ecree with their instruction. Consider what structures or supports would work in your context to encourage teachers to prioritize using Ecree and help them address implementation barriers.

5 Districts’ cost for use of Ecree depend on implementation and support needs, and the price per student would likely be lower for larger districts

The average software licensing fee for using Ecree was \$7 per student during the 2021–2022 school year, based on estimates produced in this study. The approximate total cost for districts to implement Ecree for this study was \$27.90 per student, which included costs related to implementing Ecree in classrooms, over and above the software licensing fee. These costs were not fees paid to Ecree, but rather the value of time spent implementing the tool. These costs included teachers’ time attending an hour-long webinar training offered by Ecree support staff and additional time for teachers to set up and prepare to use the tool. The cost also included time district leaders spent communicating about the tool with teachers and district staff and time for district network administrators to integrate and install the tool in the district’s learning management system. Cost calculations assume students have access to a computer or tablet and high-speed internet in schools—important prerequisites for successfully implementing the tool—and do not account for any related expenditures districts might incur to provide those resources.

Several factors may influence the cost to districts of implementing Ecree in the future, including updates to the tool’s features. Ecree expects the cost per student for licensing fees will be lower for districts with larger student enrollments.

STUDY OVERVIEW

Study design. The study team randomly assigned 45 English language arts teachers from two school districts either to have access to Ecree (intervention group) or 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 1,800 students in grades 8–11 across 19 schools. Read more about the [study methods](#).

Data and methods used for the brief. Not all study participants completed all data collection activities. The study team analyzed completed surveys from 368 students and 17 teachers in the intervention group at the end of the study to assess usability and usefulness of Ecree. The student samples used for analysis of survey measures ranged from 367 to 368 depending on the survey measure because some students left some questions blank. For impact analyses of writing proficiency, the study team analyzed essay writing assessments from 247 students in the intervention group and 283 students in the comparison group. Using the impact estimates and evidence from prior studies, the team calculated the probability that the true impacts of Ecree were positive. For reporting findings in the briefs, we considered an 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 to have had an impact if the probability was 60 percent or less. The study team also conducted interviews with seven teachers in the intervention group and two district staff in addition to reviewing Ecree usage data. The study team calculated descriptive statistics from the survey and usage data and thematically coded interview notes.

Implementation context. The study took place in two suburban school districts in Alabama and North Carolina during the COVID-19 pandemic. Instruction in both districts was conducted in person, but some classrooms in each district had to pivot at times to virtual instruction because of COVID-19 outbreaks. School districts provided students with laptops and internet access, which are required to use Ecree. The intervention-group teachers and students used Ecree for the first time during the study. About a quarter of students in the samples used for analysis were Black or Latino, which were communities in focus for this study.

Level of implementation. Although teachers and students in the intervention group used Ecree, very few completed all intended activities. The Ecree team and study researchers requested teachers attend webinar trainings, set up prompts for writing assignments, and assign at least six essays in Ecree. Students were intended to complete and revise at least six essays and use the writing diagnostic feature. Across both districts, 76 percent of the teachers attended the webinar training. Teachers assigned an average of 1.5 essays, and students completed and revised an average of one essay in Ecree.

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

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Interested in implementing Ecee in the classroom? Email contact@ecree.com.

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.

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